

Revised Board of Game and Inland Fisheries  
4000 West Broad Street, Board Room  
Richmond, Virginia 23230  
August 14, 2012  
9:00am

Call to order and welcome, reading of the Mission Statement and Pledge of Allegiance to the Flag.

1. Recognition of Employees and Others
2. Public Comments – Department plan to build a new headquarters under PPEA
3. Public Comments – Non-Agenda Items
4. Approval of July 10, 2012 Board Meeting Minutes
5. Committee Meeting Reports:

**Wildlife, Boat and Law Enforcement Committee:** Mr. Turner, Chairman of the Wildlife, Boat and Law Enforcement Committee, will report on the activities of the August 7, 2012 Committee Meeting. The Committee will recommend the following items to the full Board for final action:

- ❖ Staff Recommendations – Fisheries Regulation Amendments
- ❖ Staff Recommendations – Diversity Regulation Amendments
- ❖ Staff Recommendations – Boating Regulation Amendments
- ❖ Staff Recommendations – 2012-2013 Migratory Waterfowl Seasons and Bag Limits
- ❖ Staff Recommendations – ADA Regulation
- ❖ Agency Land Use Plan
- ❖ Proposed CY2013 Board Meeting Schedule

**Finance, Audit and Compliance Committee:** Mr. Colgate, Chairman of the Finance, Audit and Compliance Committee, will report on the activities of the July 25, 2012 Committee Meeting. The Committee will present the following reports:

- ❖ FY2012 Year-end Financial Summary
- ❖ Internal Audit FY2013 Work Plan - Final Action

**Education, Planning and Outreach Committee:** Ms. Caruso, Chairwoman of the Education, Planning, and Outreach Committee Meeting. Ms. Caruso will announce the next Committee Meeting will be held on October 17, 2012 beginning at 10:00am.

6. Closed Session
7. Director's Report:
8. Chairman's Remarks
9. Additional Business/Comments
10. Next Meeting Date: October 18, 2012 beginning at 9:00am
11. Adjournment

**DEPARTMENT OF GAME AND INLAND FISHERIES**

**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Director's Office

**PRESENTER:** Mr. Duncan

**DATE SUBMITTED:** August 7, 2012

**SUBMITTED BY:** DGIF Staff

**SUBJECT:**

Recognition of Employees and Others

**BACKGROUND:**

**RECOMMENDATIONS:**

No Board action required.

**DEPARTMENT OF GAME AND INLAND FISHERIES**

**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Infrastructure                      **PRESENTER:** Larry Hart

**DATE SUBMITTED:** August 9, 2012      **SUBMITTED BY:** Larry Hart

**SUBJECT:** Headquarters Comprehensive Agreement Public Hearing

**BACKGROUND:**

The agency just learned the Code was amended in 2009 making a previously optional public hearing before we sign a comprehensive agreement now mandatory. This change was not incorporated into the PPEA guidelines issued by the Department of General Services. Assistant Attorney General Steve Owens advises the agency the notice requirements can be met by posting the notice of public hearing three workdays before the hearing. This requirement was met.

**RECOMMENDATION:**

The public hearing be opened with the following introduction:

**“I open this public hearing pursuant to Section 56-575.17 of the Code of Virginia to receive public comment on the board’s intent to enter into a comprehensive agreement with Northlake DGIF, LLC, a private entity, to construct a new headquarters building for the department. The public is now invited to come to the podium, state their name, tell us where they are from, and provide comments to the board on this subject.”**

(After receiving public comment, close the hearing.)

**“I now close this public hearing portion of today’s meeting.”**

**DEPARTMENT OF GAME AND INLAND FISHERIES**  
**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Director's Office

**PRESENTER:** Mr. Reed

**DATE SUBMITTED:** August 7, 2012

**SUBMITTED BY:** Mr. Duncan

**SUBJECT:**

Public Comments - Non Agenda Items

**BACKGROUND:**

**RECOMMENDATIONS:**

No Board action required.

**DEPARTMENT OF GAME AND INLAND FISHERIES**  
**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Director's Office

**PRESENTER:** Mr. Reed

**DATE SUBMITTED:** August 7, 2012

**SUBMITTED BY:** B. Drewery

**SUBJECT:**

Minutes of Meeting

**BACKGROUND:**

The draft minutes of the July 10, 2012 meeting are enclosed with your briefing materials. Please review the draft minutes for desired amendments and/or corrections and notify the recording secretary of your changes prior to the August 14, 2012 meeting so that the corrections can be made and distributed to you prior to your vote to approve the minutes.

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**RECOMMENDATIONS:**

A motion is needed to approve the minutes of the July meeting.

**Board of Game and Inland Fisheries  
Meeting Minutes  
4000 West Broad Street, Board Room  
Richmond, Virginia 23236**

**July 10, 2012  
9:00am**

**Present:** Mr. F. Scott Reed, Jr., Chairman, Mr. Curtis Dixon Colgate, Vice-Chairman, Ms. Lisa Caruso, Mr. J. Brent Clarke, III, Mr. Ben Davenport, Mr. Garry Gray, Mr. Hugh C. Palmer, Mr. Leon O. Turner, Sr., Mr. Charles Yates; **Absent:** Mr. James W. Hazel and Mr. Randy J. Kozuch; **Executive Director:** Mr. Robert "Bob" W. Duncan; **Senior Leadership Team:** Dr. Joice Conyers, Mr. Tom Gelozin, Mr. Larry Hart, Mr. Lee Walker, Colonel Dabney "Dee" Watts and Mr. David Whitehurst; **Legal Counsel:** Ms. Elizabeth Andrews.

**[\(Listen: Welcome and Call to Order\)](#)**

The Chairman welcomed everyone and noted for the record that a quorum was present for the meeting. Mr. Gray read the Mission Statement into the record and Mr. Davenport led the Pledge of Allegiance. The Chairman announced that a closed meeting would be held during the meeting and also noted public comments regarding the 2012-2013 Webless Migratory Bird Regulations would be heard following the presentation by staff.

**[\(Listen: Recognition of Board Service\)](#)**

On behalf of the Board, the Chairman presented Mr. Clarke with the Chairman's Plaque and a pen and ink drawing from Ken Schuler, an artist located in the Shenandoah Valley. The Chairman thanked Mr. Clarke for his leadership and noted his many accomplishments for his term July 1, 2011-June 30, 2012.

The Chairman proceeded with the Agenda and called on the Director for the Recognition of Employees and Others.

**Recognition of Employees and Others:** **[\(Listen\)](#)** The Director and Colonel Watts recognized the following staff members:

- ❖ Ms. Karen Holson for her accomplishments in the NASP Program and her recent appointment to serve on the NASP, Inc. Board as the Representative for State Coordinators.
- ❖ 2011 Boating Officer of the Year - Officer Beth Garrett
- ❖ Officer of the Year - Senior Officer James M. Brooks

The Chairman and Director congratulated everyone on their accomplishments and thanked them for their service and dedication to the Agency and Commonwealth.

**Public Comment (Non-Agenda Items):** **[\(Listen\)](#)** The Chairman called for Public Comment-Non Agenda Items. The Chairman called attention to the need to limit individual comments to 3 minutes and comments to support a group to 5 minutes. The Chairman also reminded everyone wishing to make a comment to move to the podium so all comments can be made a part of the record and to state their name and city.

Mr. Beau Beasley, Warrenton, Virginia, spoke regarding VDGI's lack of legal assistance provided to angler's sued for fishing in public waters.

Mr. Thomas A. Miller, who represented the Friends of the Rivers of Virginia and Float Fisherman of Virginia, Lanexa, Virginia, spoke regarding the Jackson River.

Mr. David Nobles, Providence Forge, Virginia, spoke regarding the Jackson River access.

The Chairman noted for the record that Delegate Scott Lingamfelter has requested to speak at today's meeting and due to scheduling conflicts the Delegate will arrive later in the day.

The Chairman thanked everyone for their comments and attendance.

**Approval of the June 12, 2012 Board Meeting Minutes: ([Listen](#)) The minutes of the June 12, 2012 meeting have been distributed and posted to the website for review. The Chairman called for a motion to approve the June 12, 2012 minutes as presented. Mr. Davenport made the following motion: Mr. Chairman, I hereby move the minutes as presented. Motion Seconded by: Clarke. Ayes: Reed, Colgate, Caruso, Clarke, Davenport, Gray, Palmer, Turner and Yates.**

**Committee Reports:**

**(Listen: Wildlife, Boat and Law Enforcement Committee Reports - [part 1](#), [part 2](#))**

Ms. Caruso, Chairwoman of the **Wildlife, Boat and Law Enforcement Committee** noted that the **Committee** met on June 27, and heard the following staff presentations and updates:

- ❖ Law Enforcement Update
- ❖ Boating Access Grants to Localities Program.

The Committee also heard the staff's presentation on the 2012-2013 Webless Migratory Gamebirds, Falconry, September Goose and September Teal Seasons. The Chairwoman called on Mr. Ellis to present the 2012-2013 Federal Seasons and Bag Limit Frameworks and Recommendations to the full Board as recommended by the Committee.

Following Mr. Ellis' presentation, a discussion was held by the Board, Director and staff on the seasons and bag limit frameworks and recommendations presented by staff.

The Board Chairman called for public comment on the seasons and bag limits as presented by staff.

**Public Comment:**

Mr. Terry Wagner, Powhatan, Virginia, spoke regarding woodcock season.

Mr. Wilmer Stoneman, who represented the Virginia Farm Bureau, spoke regarding the September Goose Season.

The Board Chairman thanked everyone for their comments and called for a motion(s) on the seasons and bag limit frameworks as presented by staff.

**Mr. Clarke made the following motion: Mr. Chairman, I move that the Board adopt the September Goose season as presented by staff and to further authorize staff to modify the season and bag limit, if necessary, to comply with the established Federal Frameworks. Motion Seconded: Yates. Ayes: Reed, Colgate, Caruso, Clarke, Davenport, Gray, Palmer, Turner and Yates.**

**Mr. Clarke made the following motion: Mr. Chairman, I move that the Board adopt the 2012 - 2013 Dove season as presented by staff and to further authorize staff to modify the season and bag limits, if necessary, to comply with the established Federal Frameworks. Motion seconded: Gray. Mr. Colgate made an amended motion on staff recommendations on seasons to change the second segment from October 15th to October 17th and to change the start of the third segment from December 27th to December 28th and to extend the third segment through January 12th. Mr. Clarke accepted the friendly amendment. Motion Seconded by: Caruso. Ayes: Reed, Colgate, Caruso, Clarke, Davenport, Gray, Palmer, Turner and Yates.**

**Mr. Clarke made the following motion: Mr. Chairman, I move that the Board adopt the 2012- 2013 Woodcock season as presented by staff and to further authorize staff to modify the seasons and bag limits, if necessary, to comply with the established Federal Frameworks. Motion seconded by: Yates. Ayes: Reed, Colgate, Caruso, Clarke, Davenport, Gray, Palmer, Turner and Yates.**

**Mr. Clarke made the following motion: Mr. Chairman, I move that the Board adopt the 2012 - 2013 seasons for Rail, Snipe, September Teal and Falconry as presented by staff and to further authorize staff to modify seasons and bag limits, if necessary, to comply with the established Federal Frameworks. Motion seconded by: Colgate. Ayes: Reed, Colgate, Caruso, Clarke, Davenport, Gray, Palmer, Turner and Yates.**

**Mr. Ellis noted Virginia is hosting the Flyway Council and Technical Committee meeting in Williamsburg, Virginia beginning July 15-20, 2012. The Board is invited to attend.**

*The Chairman called for a 10 minute break.*

Following the break, Ms. Caruso called on Mr. Ellis to present the 2013-2014 Hunting and Trapping Regulation Process.

The Board Chairman thanked the staff for their presentations.

**[\(Listen: Finance, Audit, and Compliance Committee Reports\)](#)**

Mr. Colgate, Chairman of the **Finance, Audit and Compliance Committee**, stated the Committee had not met since the June Board Meeting. Mr. Colgate called the Board's attention to the Indebtedness of State Agencies form signed by the Director and the monthly cash fund balance report.

Mr. Colgate announced the next Committee meeting would be held on August 7, 2012 beginning at 9:00am.

**[\(Listen: Education, Planning and Outreach Committee Reports\)](#)**



The Board Chairman thanked Mr. Colgate for his report and announced the **Education, Planning and Outreach Committee** had not met since the June Board Meeting.

The Board Chairman took this opportunity to thank:

- ❖ Ms. Caruso for serving as Chair of the Wildlife, Boat and Law Enforcement Committee
- ❖ Mr. Colgate for serving as Chair of the Finance, Audit and Compliance Committee
- ❖ Mr. Hazel for serving as Chair of the Education, Planning and Outreach Committee.

New Committee assignments will be announced later in the meeting.

**Directors Report:** The Director reported on the following items:

- ❖ Update on activities related to Feral Pigs
- ❖ Leadership Development Program Graduation
- ❖ Virginia Outdoor Sportsman Show
- ❖ Natural Resources Night at the Flying Squirrels Baseball Game
- ❖ Operation Dry Water/July Fourth Boating Outreach
- ❖ Division Program Updates

***At 11:45 am. Closed Session Meeting: ([Listen](#))*** The Chairman called for a motion to move into a Closed Meeting. Mr. Clarke made the following motion:

***Closed Meeting Motion  
July 10, 2012***

***Mr. Chairman,***

***I move that the Board go into a closed meeting pursuant to Section 2.2-3711.A.1 of the Code of Virginia for discussion or consideration of employment, assignment, appointment, promotion, performance, demotion, salaries, disciplining,, or resignation of specific public officers, appointees, or employees of the Department of Game and Inland Fisheries specifically regarding:***

- ***The performance of the Director.***

***Furthermore, pursuant to Section 2.2-3711.A.3 of the Code of Virginia for discussion or consideration of the acquisition of real property for a public purpose, or of the disposition of publicly held real property with respect to:***

- ***The relocation of the agency headquarters; and an exchange of real property in Wythe County.***

***And finally, pursuant to Section 2.2-3711.A.7 of the Code of Virginia for consultation with legal counsel regarding specific legal matters requiring the provision of legal advice, specifically regarding:***

- ***Discussion with counsel concerning the Jackson River and ownership of bottomlands in the Commonwealth.***

*This closed meeting will be attended only by members of the Board. However, pursuant to Section 2.2-3712(F), the Board requests counsel, the Department Director, the Bureau Director, the Bureau Deputy Director, the Policy and Legislative Manager, and the Infrastructure Director to also attend this meeting, as it believes their presence will reasonably aid the Board in its consideration of topics that are the subject of the meeting. Motion Seconded by: Yates Ayes: Reed, Colgate, Caruso, Clarke, Davenport, Gray, Palmer, Turner and Yates.*

*The Chairman announced a closed meeting would be held later in the meeting to continue business of the Board.*

*At 12:44, Mr. Clarke made the following certification: ([Listen](#))*

*Certification of Closed Session  
July 10, 2012*

*WHEREAS, the Board of Game and Inland Fisheries conducted a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act; and*

*WHEREAS, Section 2.2-3712.D of the Code requires a certification by this Board that such closed meeting was conducted in conformity with Virginia law;*

*NOW, THEREFORE, BE IT RESOLVED that the Board of Game and Inland Fisheries hereby certifies that, to the best of each member's knowledge, only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting to which this certification resolution applies, and only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Board. Mr. Colgate seconded the Certification.*

*The Board Secretary conducted the following voice roll call certification:*

*Turner - Aye*

*Yates - Aye*

*Caruso -Aye*

*Clarke - Aye*

*Colgate - Aye*

*Reed -Aye*

*Davenport -Aye*

*Gray-Aye*

*Palmer-Aye*

**([Listen: Public Comments](#))**

Following the Closed Meeting, the Chairman called for Public Comments. The Chairman welcomed Delegate Lingamfelter and invited him to the podium for comment.

Delegate Scott Lingamfelter, Woodbridge, Virginia, spoke regarding the Jackson River Issues.

**Directors Report:** ([Listen](#)) The Director reported on the following items:

- ❖ Update on activities related to Feral Pigs

- ❖ Leadership Development Program Graduation
- ❖ Virginia Outdoor Sportsman Show
- ❖ Natural Resources Night at the Flying Squirrels Baseball Game
- ❖ Operation Dry Water/July Fourth Boating Outreach
- ❖ Division Program Updates

**Chairman's Remarks: ([Listen](#))** The Chairman announced the new Committee Chairs and assignments for 2012-2013.

***Board of Game and Inland Fisheries  
2012-2013 Committee Assignments  
July, 2012***

Finance, Audit and Compliance (FAC):

**Chair, Curtis Colgate**

Ben Davenport

Charles Yates

DGIF Staff Contact: Tom Gelozin

Wildlife, Boat and Law Enforcement (WBL):

**Chair, Leon Turner**

Garry Gray

Brent Clarke

Jimmy Hazel as Alternate

DGIF Staff Contact: David Whitehurst

Education, Planning and Outreach (EPO):

**Chair, Lisa Caruso**

Hugh Palmer

Randy Kozuch

DGIF Staff Contact: Lee Walker

Wildlife Foundation Board Representative

Curtis Dixon Colgate

Ms. Elizabeth Andrews conducted an Annual FOIA briefing for the Board. A discussion was held by the Board, Director and Ms. Andrews. Following her presentation, the Chairman thanked the staff for their presentations during the meeting today and called for a motion to move into a Closed Meeting.

***At 1:53pm, Mr. Clarke made the following motion: ([Listen](#))***

***Closed Meeting Motion  
July 10, 2012***

***Mr. Chairman,***

***I move that the Board go into a closed meeting pursuant to Section 2.2-3711.A.1 of the Code of Virginia for discussion or consideration of employment, assignment, appointment, promotion,***

*performance, demotion, salaries, disciplining, or resignation of specific public officers, appointees, or employees of the Department of Game and Inland Fisheries specifically regarding:*

- *The performance of the Director.*

*And pursuant to Section 2.2-3711.A.7 of the Code of Virginia for consultation with legal counsel regarding specific legal matters requiring the provision of legal advice, specifically regarding:*

- *Discussion with counsel concerning the Jackson River and ownership of bottomlands in the Commonwealth.*

*This closed meeting will be attended only by members of the Board. However, pursuant to Section 2.2-3712(F), the Board requests counsel, the Department Director, the Bureau Director, the Bureau Deputy Director, and the Policy and Legislative Manager to also attend this meeting, as it believes their presence will reasonably aid the Board in its consideration of topics that are the subject of the meeting. Motion Seconded by: Colgate. Ayes: Reed, Colgate, Caruso, Clarke, Davenport, Gray, Palmer, Turner and Yates.*

*At 2:56 pm, Mr. Clarke made following Certification of the Closed Meeting:*

*Certification of Closed Meeting  
July 10, 2012*

*WHEREAS, the Board of Game and Inland Fisheries conducted a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act; and*

*WHEREAS, Section 2.2-3712.D of the Code requires a certification by this Board that such closed meeting was conducted in conformity with Virginia law;*

*NOW, THEREFORE, BE IT RESOLVED that the Board of Game and Inland Fisheries hereby certifies that, to the best of each member's knowledge, only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting to which this certification resolution applies, and only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Board. Motion Seconded by: Mr. Colgate.*

*The Board Secretary conducted the following voice roll call certification: ([Listen](#))*

*Palmer - Aye  
Gray - Aye  
Colgate - Aye  
Clarke - Aye  
Caruso - Aye  
Yates - Aye  
Turner - Aye  
Reed - Aye*

*Following the Closed Meeting, Mr. Colgate made the following motion:*

*Mr. Chairman, I move that the Board authorize the Director to exchange in Wythe County approximately 150 acres of Department property with royalty on future mineral extractions retained, for an approximately 36 acre parcel, an approximately 88 acre parcel, a public access easement from State Route 634 to the agency's Big Survey WMA, development and maintenance of a suitable roadway on that easement, and construction of an approximately 15 -vehicle parking lot on the Big Survey WMA at the terminus of the road constructed on the easement. The transfers shall be according to applicable state and federal procedures. Motion Seconded by: Clarke. Ayes: Reed, Colgate, Caruso, Clarke Gray, Palmer, Turner, and Yates.*

**(Listen: Chairman's Remarks)**

*The Director called the Board's attention to the first bi-monthly issue of the Virginia Wildlife Magazine.*

**Additional Business/Comments:** **(Listen)** The Chairman called for additional comments/business of the Board

Mr. Clarke thanked the Board for the gifts and also thanked Beth for her assistance during his term as Chairman.

**(Listen: Next Meeting and Adjournment)**

**Next Meeting:** The next Board meeting is scheduled for August 14, 2012 beginning at 9:00am.

**Adjournment:** The Chairman called for a motion to adjourn. Mr. Colgate made the following motion: Mr. Chairman I hereby move this meeting be adjourned. Motion Seconded by: Caruso. Ayes: Reed, Colgate, Caruso, Clarke, Gray, Palmer, Turner, and Yates.

Respectfully submitted,

/s/Beth Drewery, Secretary  
Board of Game and Inland Fisheries

**DEPARTMENT OF GAME AND INLAND FISHERIES**

**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Director's Office

**PRESENTER:** Mr. Reed/Mr. Duncan

**DATE SUBMITTED:** August 7, 2012

**SUBMITTED BY:** Committee/Staff

**SUBJECT:**

Committee Meeting Reports

**BACKGROUND:**

**RECOMMENDATIONS:**

**Wildlife, Boat and Law Enforcement Committee:** Mr. Turner, Chairman of the Wildlife Boat and Law Enforcement Committee, will report on the activities of the August 7, 2012 Committee Meeting. The Committee will recommend the following items to the full Board for final action:

- ❖ Staff Recommendations -Fisheries, Diversity and Boating Regulation Amendments
- ❖ Staff Recommendations 2012-2013 Migratory Waterfowl Seasons and Bag Limits
- ❖ Staff Recommendations ADA Regulation
- ❖ Agency Land Use Plan
- ❖ Review Proposed 2013 Wildlife, Boat and Law Enforcement Committee/Board Meeting Schedule

**Finance, Audit and Compliance Committee:** Mr. Colgate, Chairman of the Finance, Audit and Compliance Committee, will report on the activities of the July 25, 2012 Committee Meeting. The Committee will present the following reports:

- ❖ FY2012 Year-end Financial Summary
- ❖ Internal Audit FY 2013 Work Plan - Final Action

**Education, Planning and Outreach Committee:** Ms. Caruso, Chairwoman of the Education, Planning, and Outreach Committee Meeting. Ms. Caruso will announce t he next Committee Meeting will be held on October 17, 2012 beginning at 10:00am.

**DEPARTMENT OF GAME AND INLAND FISHERIES**  
**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Wildlife Resources

**PRESENTER:** Gary Martel

**DATE SUBMITTED:** August 6, 2012      \_\_\_

**SUBMITTED BY:** Gary Martel

**SUBJECT:** Staff recommendation to Board Proposals on fishing regulation amendments.

**BACKGROUND:** The cycle for considering changes to fishing, boating and nongame regulations occurred during 2011 and 2012. Staff have met and discussed the board proposals for fishing that were the result of the regulatory amendment process, and will give a presentation and recommendation the Board's approval.

**RECOMMENDATION:** Motion to adopt the regulation amendments for fishing as proposed.

**Virginia Department of Game and Inland Fisheries**

**Fisheries Regulations  
Staff Recommendations to Board Proposals  
Board of Game and Inland Fisheries  
August 14, 2012**



**4VAC15-320-25**

**Fish: Fishing Generally. Creel and length limits.**

**Summary:**

The proposal is to: (i) modify the current “No bass 14-24 inches, only one per day longer than 24 inches” limit to a “No bass 16-24 inches, only 1 per day longer than 24 inches” limit at Briery Creek Lake, (ii) modify the current geographic exception on the Staunton River of “Leesville Dam (Campbell County) downstream to the U.S. Route 360 Bridge (Halifax/Charlotte County Line) near Clover, VA” to “Leesville Dam (Campbell County) downstream to mouth of Difficult Creek, Charlotte County”, (iii) modify the current “No bass less than 20 inches, only 1 per day longer than 20 inches” regulation to “No smallmouth bass less than 20 inches, only 1 per day longer than 20 inches” regulation on the Staunton River, (iv) modify the current geographic exception of “Buggs Island (Kerr) Reservoir including the Staunton River to Leesville Dam and the Dan River to Brantly Steam Plant (Danville)” to “Buggs Island (Kerr) Reservoir including the Staunton River to Leesville Dam and the Dan River Union Street Dam (Danville)”, (v) modify the current “No striped bass or hybrid striped bass less than 26 inches (October 1 – May 31)” to “No striped bass or hybrid striped bass less than 24 inches (October 1 – May 31)”, 2 per day in the aggregate at Buggs Island (Kerr) Reservoir, (vi) establish a “10 per day” yellow perch creel limit, no length limit for Lake Moomaw, (vii) establish recreational creel and length limits for certain marine and brackish water species in Back Bay and its natural tributaries: red drum “no drum less than 18 inches or greater than 27 inches, 1 per day; spotted sea trout “no sea trout less than 14 inches, 4 per day”; grey trout “no grey trout less than 12 inches, 1 per day”; southern flounder “no flounder less than 15 inches, 6 per day”.

**Proposed language of amendment:**

**4VAC15-320-25. Fish: Fishing Generally. Creel and length limits.**

The creel limits (including live possession) and the length limits for the various species of fish shall be as follows, unless otherwise excepted by posted rules at department-owned or department-controlled waters (see [4VAC15-320-100 D](#)).

Type of fish	Subtype or location	Creel and length limits	Geographic exceptions	Creel or length limits for exceptions
largemouth bass, smallmouth bass, spotted bass		5 per day in the aggregate;  No statewide length limits	<b>Lakes</b>	
			Briery Creek Lake	No bass <del>14 to 24</del> 16-24 inches, only 1 per day longer than 24 inches
			Buggs Island (Kerr)	Only 2 of 5 bass less than 14 inches

Type of fish	Subtype or location	Creel and length limits	Geographic exceptions	Creel or length limits for exceptions
			Claytor Lake	No bass less than 12 inches
			Flannagan Reservoir	No bass less than 12 inches
			Lake Gaston	Only 2 of 5 bass less than 14 inches
			Leesville Reservoir	Only 2 of 5 bass less than 14 inches
			Lake Moomaw	No bass less than 12 inches
			Philpott Reservoir	No bass less than 12 inches
			Quantico Marine Base waters	No bass 12 to 15 inches
			Smith Mt. Lake and its tributaries below Niagara Dam	Only 2 of 5 bass less than 14 inches
			<b>Rivers</b>	
			Clinch River – within the boundaries of Scott, Wise, Russell, or Tazewell counties	No bass 11 to 14 inches
			Dan River and tributaries downstream from the <del>Brantley Steam Plant</del> <u>Union Street Dam</u> , Danville	Only 2 of 5 bass less than 14 inches
			James River – Confluence of the Jackson and Cowpasture rivers (Botetourt County) downstream to the 14th Street Bridge in Richmond	No bass 14 to 22 inches, only 1 per day longer than 22 inches
			New River – Fields Dam (Grayson County) downstream to the VA – WV state line and its tributary Little River downstream from Little River Dam in Montgomery County (This does not include Claytor Lake which is delineated as: The upper end of the island at Allisonia downstream to the dam)	No bass 14 to 20 inches, only 1 per day longer than 20 inches

Type of fish	Subtype or location	Creel and length limits	Geographic exceptions	Creel or length limits for exceptions
			North Fork Holston River - Rt. 91 bridge upstream of Saltville, VA downstream to the VA-TN state line	No bass less than 20 inches, only 1 per day longer than 20 inches
			North Fork Shenandoah River – Rt. 42 bridge, Rockingham Co. downstream to the confluence with S. Fork Shenandoah at Front Royal	No bass 11 to 14 inches
			Potomac River - Virginia tidal tributaries above Rt. 301 bridge	No bass less than 15 inches from March 1 through June 15
			Roanoke (Staunton) River - and its tributaries below Difficult Creek, Charlotte Co.	Only 2 of 5 bass less than 14 inches
			Shenandoah River – Confluence of South Fork and North Fork rivers, Front Royal, downstream, to the Warren Dam, near Front Royal	No bass 11 to 14 inches
			Base of Warren Dam, near Front Royal downstream to Rt. 17/50 bridge	No bass 14 to 20 inches, only 1 per day longer than 20 inches
			Rt. 17/50 bridge downstream to VA - WV state line	No bass 11 to 14 inches
			South Fork Shenandoah River – Confluence of North and South rivers, below Port Republic, downstream to Shenandoah Dam, near Town of Shenandoah	No bass 11 to 14 inches

Type of fish	Subtype or location	Creel and length limits	Geographic exceptions	Creel or length limits for exceptions
			Base of Shenandoah Dam, near Town of Shenandoah, downstream to Luray Dam, near Luray	No bass 14 to 20 inches, only 1 per day longer than 20 inches
			Base of Luray Dam, near Luray, downstream to the confluence with North Fork of Shenandoah, Front Royal	No bass 11 to 14 inches
			Staunton River-  Leesville Dam (Campbell County) downstream to the U.S. Route 360 Bridge (Halifax/Charlotte County Line) near Clover, VA mouth of <u>Difficult Creek, Charlotte County</u>	No <u>smallmouth</u> bass less than 20 inches, only 1 per day longer than 20 inches
striped bass	landlocked striped bass and landlocked striped bass x white bass hybrids	4 per day in the aggregate;  No fish less than 20 inches	Bugs Island (Kerr) reservoir including the Staunton River to Leesville Dam and the Dan River to <del>Brantly Steam Plant</del> <u>Union Street Dam</u> (Danville)	October 1 - May 31: 2 per day in the aggregate;  No striped bass or hybrid striped bass less than <del>26 inches</del> <u>24 inches</u> ;  June 1 - September 30: 4 per day in the aggregate;  No length limit
			Smith Mountain Lake and its tributaries, including the Roanoke River upstream to Niagara Dam	2 per day in the aggregate;  November 1 - May 31: No striped bass 26 to 36 inches;  June 1 - October 31: No length limit

Type of fish	Subtype or location	Creel and length limits	Geographic exceptions	Creel or length limits for exceptions
			Lake Gaston	4 per day in the aggregate  October 1 - May 31: No striped bass or hybrid striped bass less than 20 inches  June 1 - September 30: No length limit
	anadromous (coastal) striped bass above the fall line in all coastal rivers of the Chesapeake Bay	Creel and length limits shall be set by the Virginia Marine Resources Commission for recreational fishing in tidal waters		
	anadromous (coastal) in the Meherrin, Nottoway, Blackwater (Chowan Drainage), North Landing and Northwest Rivers and their tributaries plus Back Bay	2 per day;  No striped bass less than 18 inches		
white bass		5 per day;  No statewide length limits		
walleye		5 per day;  No walleye less than 18 inches	New River upstream of Buck Dam in Carroll County	No walleye less than 20 inches
			Claytor Lake and the New River upstream of Claytor Lake Dam to Buck Dam in Carroll County	February 1 - May 31: 2 walleye per day; no walleye 19 to 28 inches;  June 1 - January 31: 5 walleye per day; no walleye less than 20 inches

Type of fish	Subtype or location	Creel and length limits	Geographic exceptions	Creel or length limits for exceptions
sauger		2 per day;  No statewide length limits		
<u>yellow perch</u>		<u>No statewide daily limit</u>  <u>No statewide length limits</u>	<u>Lake Moomaw</u>	<u>10 per day</u>
chain pickerel		5 per day;  No statewide length limits	Gaston and Buggs Island (Kerr) reservoirs	No daily limit
northern pike		2 per day;  No pike less than 20 inches		
muskellunge		2 per day;  No muskellunge less than 30 inches	New River - Fields Dam (Grayson County) downstream to the VA - WV state line, including Claytor Lake	1 per day  No muskellunge less than 42 inches
bluegill (bream) and other sunfish excluding crappie, rock bass (redeye) and Roanoke bass		50 per day in the aggregate;  No statewide length limits	Gaston and Buggs Island (Kerr) reservoirs and that portion of the New River from the VA - NC state line downstream to the confluence of the New and Little Rivers in Grayson County	No daily limit
crappie (black or white)		25 per day in the aggregate;  No statewide length limits	Gaston and Buggs Island (Kerr) reservoirs and that portion of the New River from the VA - NC state line downstream to the confluence of the New and Little Rivers in Grayson County	No daily limit
			Flannagan and South Holston reservoirs	No crappie less than 10 inches
rock bass (redeye)		25 per day;  No statewide length limits	Gaston and Buggs Island (Kerr) reservoirs and that portion of the New River from the VA - NC state line downstream to the confluence of the New and Little Rivers in Grayson County.	No daily limit

Type of fish	Subtype or location	Creel and length limits	Geographic exceptions	Creel or length limits for exceptions
			Nottoway and Meherrin rivers and their tributaries	5 per day in the aggregate with Roanoke bass;  No rock bass less than 8 inches
Roanoke bass		No statewide daily limit;  No statewide length limits	Nottoway and Meherrin rivers and their tributaries	5 per day in the aggregate with rock bass;  No Roanoke bass less than 8 inches
trout	See <a href="#">4VAC15-330</a> . Fish: Trout Fishing.			
catfish	channel, white, and flathead catfish	20 per day;  No length limits	All rivers below the fall line	No daily limit
	blue catfish	20 per day, only 1 blue catfish per day longer than 32 inches	All rivers below the fall line	No daily limit, except only 1 blue catfish per day longer than 32 inches
	yellow, brown, and black bullheads	No daily limit;  No length limits		
American shad and hickory shad	James River above the fall line (14th Street Bridge), the Meherrin River above Emporia Dam, the Chickahominy River above Walkers Dam, the Appomattox River above Harvell Dam, the Pamunkey River and the Mattaponi River above the Rt. 360 bridge, and the Rappahannock River above the Rt. 1 bridge, and Virginia waters of Lake Gaston and Buggs Island (Kerr) Reservoir and tributaries to include the Dan and Staunton rivers	No possession (catch and release only)		
	(below the fall line) in tidal rivers of the Chesapeake Bay	Creel and length limits shall be those set by the Virginia Marine Resources Commission		

Type of fish	Subtype or location	Creel and length limits	Geographic exceptions	Creel or length limits for exceptions
	Meherrin River below Emporia Dam Nottoway River, Blackwater River (Chowan Drainage), North Landing and Northwest rivers, and their tributaries plus Back Bay	10 per day in the aggregate  No length limits		
anadromous (coastal) alewife and blueback herring	Above and below the fall line in all coastal rivers of the Chesapeake Bay	Creel and length limits shall be those set by the Virginia Marine Resources Commission		
	Meherrin River, Nottoway River, Blackwater River (Chowan Drainage), North Landing and Northwest rivers, and their tributaries plus Back Bay	No possession		
<u>red drum</u>	<u>Back Bay and tributaries including Lake Tecumseh, North Landing River and its tributaries</u>	<u>no drum less than 18 inches or greater than 27 inches, 1 per day</u>		
<u>spotted sea trout (speckled trout)</u>		<u>no sea trout less than 14 inches, 4 per day</u>		
<u>grey trout (weakfish)</u>		<u>no grey trout less than 12 inches, 1 per day</u>		
<u>southern flounder</u>		<u>no flounder less than 15 inches, 6 per day</u>		
other native or naturalized nongame fish	See <a href="#">4VAC15-360-10</a> . Fish: Aquatic Invertebrates, Amphibians, Reptiles, and Nongame Fish. Taking aquatic invertebrates, amphibians, reptiles and nongame fish for private use.			
endangered or threatened fish	See <a href="#">4VAC15-20-130</a> . Definitions and Miscellaneous: In General. Endangered and threatened species; adoption of federal list; additional species enumerated.			
nonnative (exotic) fish	See <a href="#">4VAC15-30-40</a> . Definitions and Miscellaneous: Importation, Possession, Sale, Etc., of Animals. Importation requirements, possession and sale of nonnative (exotic) animals.			

**Rationale:**

**Modify bass length limit at Briery Creek Lake:**

The proposed modification of the “No bass 14 to 24 inches” slot limit to “No bass 16 to 24 inches” at Briery Creek Lake is designed to reduce stockpiling of bass inside the protective slot limit. Briery Creek Lake has been Virginia’s premier trophy largemouth bass destination since it opened to the public in 1989. The current regulation, a 14-24 inch protected slot limit went into



effect in 2001. This regulation has been effective at protecting adult fish and recycling trophy largemouth bass. The density of largemouth bass within the slot limit increased significantly within several years of the regulation change and has remained steady since then. However, several factors at Briery Creek Lake have changed in the past several years. First, aquatic vegetation coverage increased significantly (about 40% coverage) which likely had a negative impact on primary productivity and eventual recruitment. Additionally, dense stands of aquatic vegetation can have negative impacts on foraging ability of largemouth bass. The second change to the largemouth bass populations was an outbreak of largemouth bass virus in summer 2010. This virus caused a minor fish kill; additionally, growth and survival in 2011 were significantly lower than in 2004. These factors have resulted in a fishery that has stockpiled in the slot limit that are growing slower and suffering from higher natural mortality.

**Modify the geographic exception on the Staunton River:**

Modifying the current downstream geographic exception (fisheries regulation boundary) on the Staunton River from “the U.S. 360 Bridge” to the “mouth of Difficult Creek” will clarify regulation boundaries between the river and the reservoir. Currently, the smallmouth bass regulation on the Staunton River extends from Leesville Dam downstream to the U.S. 360 bridge but the black bass regulation for Buggs Island (Kerr) Reservoir includes the area from Kerr Dam upstream to Difficult Creek. Difficult Creek is below the U.S. 360 Bridge. Therefore, there is about a 6 mile gap in these regulations where statewide regulations would have to apply. This change will make the downstream Staunton River boundary and the upstream Buggs Island (Kerr) Reservoir boundaries agree.

**Modify the Staunton River bass regulation:**

The proposed change in the bass regulation on the Staunton River from “No bass less than 20 inches” to “No smallmouth bass less than 20 inches” will allow additional harvest of other black bass species. While catch and release is popular on the Staunton River, angler harvest is still a reality. The new regulation was implemented to take advantage of the fast growth rates for smallmouth bass and to shift size structure to larger fish by eliminating harvest of smallmouth bass less than citation length. The existing regulation essentially precludes all black bass harvest since spotted bass never exceed 20 inches and largemouth bass are not abundant. Since the current regulation went into effect on January 1, 2011, numerous anglers have expressed disappointment that largemouth bass and spotted bass are essentially catch and release.

**Modify the geographic exception on the Dan River arm of Buggs Island (Kerr) Reservoir:**

Modifying the current upstream geographic exception (fisheries regulation boundary) on the Dan River arm of Buggs Island (Kerr) Reservoir from the “Brantly Steam Plant (Danville)” to the “Union Street Dam (Danville)” will protect striped bass and black bass under existing fishing regulations in place at Buggs Island (Kerr) Reservoir. The Brantly Steam Plant dam was breached in summer 2011 to allow for fish migration and passage. The Union Street dam will serve as an upstream barrier to fish migration and as such would create an opportunity for anglers to over-exploit spring-run striped bass in the 1.7 miles of river from Brantly Steam Plant to the Union Street Dam.

**Modify the striped bass length limit at Buggs Island (Kerr) Reservoir:**

The proposed change in the striped bass regulation from “No striped bass or hybrid striped bass less than 26 inches” to “No striped bass or hybrid striped bass less than 24 inches” will provide additional harvest opportunities for anglers at Buggs Island (Kerr) Reservoir. The existing 26 inch length limit during October 1 – May 31 was put in place on July 1, 2006. Unfortunately, growth rates have declined slightly in the past 5 years due to a number of potential causes. Decreased productivity of the system and recent, severe copepod infestation are likely causes of the decline. As a result, few fish are reaching 26 inches and anglers are becoming frustrated with the regulation.

**Establish a yellow perch creel limit at Lake Moomaw:**

Yellow perch are not considered a game fish in Virginia, hence there are no statewide length or creel limits governing this species. A pattern of heavy harvest occurred at Lake Moomaw over a 20+ year period, as exhibited in the citation data and sampling results which have declined over time. Concurrent with harvest pressure, leather carp have expanded in the lake since 1995, significantly altering yellow perch spawning vegetation in the lake’s shallow waters. Alewives, the primary prey base in Lake Moomaw, are thought to compete for zooplankton with early life stages of yellow perch. Alewives are very prolific and support a thriving brown trout fishery and a fledgling steelhead population, so they are valued as a prey source in the lake. As control of carp and alewife populations is impractical, another technique is necessary to protect the yellow perch fishery at Lake Moomaw. A 10 fish per day creel limit will help this population rebuild by reducing harvest pressure on the species.

**Establish creel and length limits for certain marine and brackish water species in Back Bay:**

It has become necessary to establish recreational creel and length limits for certain marine and brackish water gamefish not previously regulated by the Board, which will likely seasonally inhabit Back Bay and the North landing River. Pending legislation, if approved, will clarify jurisdictional fisheries resource authority between DGIF and the Marine Resources Commission (MRC) for these waters. If such legislation is approved, DGIF will need to establish creel and length limits for a number of marine and brackish water gamefishes not already regulated by the Agency in order to protect these natural resources. Species will include, but may not be limited to red drum, spotted sea trout, grey trout or weakfish and southern flounder. Since these species of fish primarily enter Back Bay, Lake Tecumseh, North Landing River via Oregon Inlet, North Carolina; fisheries regulations should be consistent with those of the Currituck Sound, the southern extension of this same drainage. The marine and brackish water fishes in Currituck Sound are managed by the North Carolina Division of Marine Fisheries.

## 4VAC15-350-70

**Fish: Gigs, grab hooks, trotlines, snares, etc. Taking common carp, northern snakehead, bowfin, catfish and gar with bow and arrow or crossbow.**

### **Summary:**

The proposal is to: (i) add crossbows as a legal method of bow and arrow angling for nongame fish to help eliminate confusion with this fishing method, (ii) allow the harvest of bowfin and catfish with bow and arrow below the fall line in tidal rivers of the Chesapeake Bay.

### **Proposed language of amendment:**

**4VAC15-350-70. Taking common carp, northern snakehead, bowfin, catfish and gar with bow and arrow or crossbow.**

A. Season. Except as otherwise provided by local legislation or as posted, it shall be lawful to take common carp, northern snakehead, and gar from the public inland waters of the Commonwealth and bowfin and catfish from below the fall line in tidal rivers of the Chesapeake Bay, except waters stocked with trout, by means of bow and arrow or crossbow.

B. Poison arrows or explosive-head arrows prohibited. It shall be unlawful to use poison arrows or arrows with explosive heads at any time for the purpose of taking common carp, northern snakehead, bowfin, catfish or gar in the public inland waters of the Commonwealth.

C. Fishing license required. All persons taking fish in the manner mentioned in this section shall be required to have a regular fishing license.

D. Creel limits. Common carp, northern snakehead, bowfin, catfish and gar – unlimited, provided that any angler taking northern snakehead immediately kill such fish and notify the department, as soon as practicable, of such actions.

### **Rationale:**

#### **Adding crossbows to the bow and arrow harvest methods for nongame fish:**

Legalizing crossbows as a legal method of bow and arrow angling for nongame fish will help to eliminate confusion with this fishing method. “Traditional” bow and arrow may be used to harvest several nongame fish species with the possession of a fishing license and crossbows should be legal for this fishing method as well.

**Allow the harvest of bowfin and catfish with bow and arrow below the fall line in tidal rivers of the Chesapeake Bay:**

Including bowfin and catfish to the list of legal fish species to harvest with bow and arrow below the fall line in tidal rivers will increase angling opportunities and help prevent certain sources of potential confusion.

**DEPARTMENT OF GAME AND INLAND FISHERIES**

**BOARD MEETING AGENDA ITEM**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Bureau of Wildlife Resources      **PRESENTER:** Robert W. Duncan

**DATE SUBMITTED:** April 6, 2012      **SUBMITTED BY:** Becky Gwynn

**SUBJECT:**

Final staff recommendations for changes to wildlife diversity (nongame) regulations.

**BACKGROUND:**

The August 7, 2012, Board meeting has been designated as the appropriate time for submission of final staff recommendations concerning regulations related to animals that are not hunted or fished for. Biologists from the Bureau of Wildlife Resources have analyzed field data and considered constituent input received during the last 2 years and from the recent comment period. As a result of those analyses and input, staffs have developed recommendations for regulatory additions, amendments and deletions. A complete package of final recommended changes with summaries, rationales, and supporting materials is included in this packet. Staff final recommendations will be summarized in a presentation to the Board.

**RECOMMENDATION:**

Staff recommends that the Board adopt the regulation amendments as presented. In accordance with this staff recommendation, a Board motion will be provided during the presentation.

**Virginia Department of Game and Inland Fisheries**

**WILDLIFE DIVERSITY (NONGAME) REGULATIONS**

**FINAL STAFF RECOMMENDATIONS  
TO BOARD PROPOSALS**

**2012**



# WILDLIFE DIVERSITY REGULATION PROPOSALS

AUGUST 2012

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**FISH AND WILDLIFE IN GENERAL**



**4 VAC 15-20. DEFINITIONS AND MISCELLANEOUS: IN GENERAL.**

**4 VAC 15-20-50. Definitions; "wild animal," "native animal," "naturalized animal," "nonnative (exotic) animal" and "domestic animal."**

**SUMMARY:**

The proposal is to update the Department's "List of Native and Naturalized Fauna of Virginia," consistent with current nomenclature and knowledge of the wildlife of the Commonwealth.

**FINAL RECOMMENDED LANGUAGE OF AMENDMENT:**

**4 VAC 15-20-50. Definitions; "wild animal," "native animal," "naturalized animal," "nonnative (exotic) animal" and "domestic animal."**

In accordance with §29.1-100 of the Code of Virginia, the following terms shall have the meanings ascribed to them by this section when used in regulations of the board:

"Wild animal" means any member of the animal kingdom, except domestic animals, including without limitation any native, naturalized, or nonnative (exotic) mammal, fish, bird, amphibian, reptile, mollusk, crustacean, arthropod or other invertebrate, and includes any hybrid of them, except as otherwise specified in regulations of the board, or part, product, egg, or offspring of them, or the dead body or parts of them.

"Native animal" means those species and subspecies of animals naturally occurring in Virginia, as included in the department's ~~2010~~2012 "List of Native and Naturalized Fauna of Virginia," with copies available in the Richmond and regional offices of the department.

"Naturalized animal" means those species and subspecies of animals not originally native to Virginia which have established wild, self-sustaining populations, as included in the department's ~~2010~~2012 "List of Native and Naturalized Fauna of Virginia," with copies available in the Richmond and regional offices of the department.

"Nonnative (exotic) animal" means those species and subspecies of animals not naturally occurring in Virginia, excluding domestic and naturalized species.

The following animals are defined as domestic animals:

Domestic dog (*Canis familiaris*), including wolf hybrids.

Domestic cat (*Felis catus*), including hybrids with wild felines.

Domestic horse (*Equus caballus*), including hybrids with *Equus asinus*.

Domestic ass, burro, and donkey (*Equus asinus*).

Domestic cattle (*Bos taurus* and *Bos indicus*).

Domestic sheep (*Ovis aries*) including hybrids with wild sheep.

Domestic goat (*Capra hircus*).

Domestic swine (*Sus scrofa domestica*), including pot-bellied pig.

Llama (*Lama glama*).

Alpaca (*Lama pacos*).

Camels (*Camelus bactrianus* and *Camelus dromedarius*).

Domesticated races of hamsters (*Mesocricetus* spp.).

Domesticated races of mink (*Mustela vison*) where adults are heavier than 1.15 kilograms or their coat color can be distinguished from wild mink.

Domesticated races of red fox (*Vulpes*) where their coat color can be distinguished from wild red fox.

- 37 Domesticated races of guinea pigs (*Cavia porcellus*).
- 38 Domesticated races of gerbils (*Meriones unguiculatus*).
- 39 Domesticated races of chinchillas (*Chinchilla laniger*).
- 40 Domesticated races of rats (*Rattus norvegicus* and *Rattus rattus*).
- 41 Domesticated races of mice (*Mus musculus*).
- 42 Domesticated races of European rabbit (*Oryctolagus cuniculus*).
- 43 Domesticated races of chickens (*Gallus*).
- 44 Domesticated races of turkeys (*Meleagris gallopavo*).
- 45 Domesticated races of ducks and geese distinguishable morphologically from wild birds.
- 46 Feral pigeons (*Columba domestica* and *Columba livia*) and domesticated races of pigeons.
- 47 Domesticated races of guinea fowl (*Numida meleagris*).
- 48 Domesticated races of peafowl (*Pavo cristatus*).

**RATIONALE:**

In 1991, the Board adopted a list of species identified as native and naturalized in the Commonwealth. This list is used in regulations pertaining to collection, holding, etc., of wildlife. This regulation was updated in 2010 to reflect changes in nomenclature and updated knowledge of the wildlife species known to occur in Virginia.

The Department maintains extensive databases regarding fish and wildlife species, and interacts daily with professional biologists, sportsmen, landowners, legislators and other government officials, and other wildlife enthusiasts on a wide variety of issues affecting wildlife. It is essential that wildlife species be unambiguously identified in these interactions, whether they be regulatory, recreational, or educational pursuits. As the knowledge of wildlife taxonomy and genetics increases, and as field and laboratory techniques improve, the genetic and taxonomic relationships among species are under constant revision. Thus, periodic updating of the taxonomic baseline and species lists for the Commonwealth is appropriate.

A proposed updated list is attached for information and reference.

## **INVASIVE AND EXOTIC SPECIES**

**4 VAC 15-20. DEFINITIONS AND MISCELLANEOUS: IN GENERAL**

**4 VAC 15-20-210. Definitions and Miscellaneous: In General; Definitions; Nonindigenous Aquatic Nuisance Species.**

**SUMMARY:**

The proposal is to add the marbled crayfish (Marmorcrebs – genus *Procambarus*) to the list of Nonindigenous Aquatic Nuisance Species, thereby prohibiting the importation, possession, transportation, sale, etc., of this species within Virginia except as allowed by law, regulation, or permit.

**FINAL RECOMMENDED LANGUAGE OF AMENDMENT:**

1 **4 VAC 15-20-210. Definitions; Nonindigenous aquatic nuisance species.**  
2

3 A. In addition to the species already listed in § 29.1-571 of the Code of Virginia, the board  
4 hereby designates the following species as nonindigenous aquatic nuisance species pursuant to  
5 § 29.1-100 of the Code of Virginia.

- 6 1. Fish  
7 a. Black carp (*Mylopharyngodon piceus*)  
8 2. Invertebrates  
9 a. New Zealand mudsnail (*Potamopyrgus antipodarum*)  
10 b. Rusty crayfish (*Orconectes rusticus*)  
11 c. Chinese mitten crab (*Eriocheir sinensis*)  
12 d. Marbled crayfish (*Marmorcrebs* – genus *Procambarus*)  
13

14 B. It shall be unlawful to take, possess, transport, import, sell, or offer for sale within the  
15 Commonwealth any nonindigenous aquatic nuisance species except as authorized by law or  
16 regulation.

**RATIONALE:**

In 2003, the Virginia General Assembly enacted the “Nonindigenous Aquatic Nuisance Species Act.” This legislation empowered the Board of Game and Inland Fisheries to promulgate regulations pertaining to these animals, including the designation of species not already included in the Act, and expanded the powers of the Department in preventing, controlling, suppressing, etc., the spread of these species. The Act has since been amended to provide specific penalties for the introduction of snakehead fish and to allow for the lawful collection of snakehead fish from the wild. In 2005, the Board added the black carp, New Zealand mudsnail, and rusty crayfish to the list of nonindigenous aquatic nuisance species through regulation, and it added the Chinese mitten crab in 2010.

The marbled crayfish was first discovered in the German pet trade during the 1990s. They have no known origin, but it has become widely accepted that the species belongs to the genus *Procambarus*, which is native to North and Central America. However, there are currently no known established populations of marbled crayfish in these areas. Since the marbled crayfish is in the *Procambarus* genus, it is likely this species would be able to compete with other

crayfishes in the Americas. They have been introduced to natural ecosystems in Madagascar, Japan and multiple countries throughout Europe. Although the implications of these introductions have yet to be determined, it is expected the marbled crayfish will successfully compete with and possibly extirpate some of the native crayfishes in these countries.

There is growing concern regarding the potential for the marbled crayfish to become established in North American aquatic ecosystems and displace or possibly extirpate native crayfish species. Given that the marbled crayfish is parthenogenic, commonly known as “self-cloning,” it has the potential and ability to colonize lakes and rivers with the introduction of only one individual. Once established, it likely will compete with native crayfishes and possibly spread crayfish plague (*Aphanomyces astaci*) and other diseases.

Impacts from the introduction of non-native crayfish species have become a significant problem in many areas of the United States, and, in some cases, the main impact is on native crayfish populations. When introduced outside of their native ranges, crayfishes have impacted native species tremendously due to competition for habitat and food, increased predation, and habitat alteration. Recent research has found that juvenile marbled crayfish could equally compete with juvenile red swamp crayfish (*Procambarus clarkii*), another exotic species in Virginia, for food and habitat resources. This may indicate that marbled crayfish has similar or better invasive potential than the red swamp crayfish. Red swamp crayfish have become a naturalized species in Virginia and successfully invaded aquatic ecosystem around the world. Recently the Missouri Department of Conservation and Maryland Department of Natural Resources have banned the sale, possession, and importation of marbled crayfish.

Due to the risk this species poses to Virginia’s wildlife and habitat, the final staff recommendation is that the marbled crayfish be added to the list of nonindigenous aquatic nuisance species under 4 VAC 15-20-210 and subject to the permitting requirements of animals included on this list.

**4 VAC 15-30. DEFINITIONS AND MISCELLANEOUS: IMPORTATION, POSSESSION, SALE, ETC., OF ANIMALS**

**4 VAC 15-30-40. Definitions and Miscellaneous: Importation, Possession, Sale, Etc., of Animals; Importation requirements, possession and sale of nonnative (exotic) animals.**

**SUMMARY:**

The proposal is to add the crayfish (Marmorkrebs – genus *Procambarus*) to the list of predatory and undesirable species under 4 VAC 15-30-40 and to update the list to reflect current common and scientific names.

**FINAL RECOMMENDED LANGUAGE OF AMENDMENT:**

1 **4 VAC 15-30-40. Importation requirements, possession and sale of nonnative (exotic)**  
 2 **animals.**

3 A. Permit required. A special permit is required and may be issued by the department, if  
 4 consistent with the department's fish and wildlife management program, to import, possess, or  
 5 sell those nonnative (exotic) animals listed below and in 4 VAC 15-20-210 that the board finds  
 6 and declares to be predatory or undesirable within the meaning and intent of § 29.1-542 of the  
 7 Code of Virginia, in that their introduction into the Commonwealth will be detrimental to the  
 8 native fish and wildlife resources of Virginia:  
 9

<b>AMPHIBIANS:</b>			
Order	Family	Genus/Species	Common Name
Anura	<del>Buforidae</del> <u>Bufonidae</u>	<del>Bufo marinus</del> <u>Rhinella marina</u>	<del>Giant or marine toad</del> <u>Cane toad*</u>
	Pipidae	Hymenochirus spp. Pseudohymenochirus merlini	African dwarf frog
		Xenopus spp.	Tongueless or African clawed frog
Caudata	Ambystomatidae	Ambystoma tigrum mavortium	Barred tiger salamander
		A. t. diaboli	Gray tiger salamander
		A. t. melanostictum	Blotched tiger salamander

10

<b>BIRDS:</b>			
Order	Family	Genus/Species	Common Name
Psittaciformes	Psittacidae	Myiopsitta monachus	Monk parakeet*

<b>FISH:</b>				
Order	Family	Genus/Species	Common Name	
Cypriniformes	Catostomidae	Ictiobus bubalus	Smallmouth* buffalo	
		I. cyprinellus	Bigmouth* buffalo	
		I. niger	Black buffalo*	
	Characidae	Pygopristis spp. Pygocentrus spp. Rooseveltiella spp. Serrasalmo spp. Serrasalmus spp. Taddyella spp.		Piranhas
		Cyprinidae	Aristichyys nobilis	Bighead carp*
			Ctenopharyngodon idella	Grass carp or white amur
			Cyprinella lutensis	Red shiner
			Hypophthalmichthys molitrix	Silver carp*
			Mylopharyngodon piceus	Black carp*
	Scardinius erythrophthalmus		Rudd	
	Tinca tinca		Tench*	
	Gobiesociformes	Gobiidae	Proterorhinus marmoratus	Tubenose goby
			Neogobius melanostomus	Round goby
Perciformes	Channidae	Channa spp. Parachanna spp.	Snakeheads	
	Cichlidae	Tilapia spp.	Tilapia	
		Gymnocephalus cernuum	Ruffe*	
Siluriformes	Clariidae	All species	Air-breathing catfish	
Synbranchiformes	Synbranchidae	Monopterus albus	Swamp eel	

<b>MAMMALS:</b>			
Order	Family	Genus/Species	Common Name
Artiodactyla	Suidae	All Species	Pigs or Hogs*
	Cervidae	All Species	Deer*
Carnivora	Canidae	All Species	Wild Dogs*, Wolves, Coyotes or Coyote hybrids, Jackals and Foxes
	Ursidae	All Species	Bears*
	Procyonidae	All Species	Raccoons and* Relatives
	Mustelidae	All Species  (except <i>Mustela putorius furo</i> )	Weasels, Badgers,* Skunks and Otters
			Ferret
	Viverridae	All Species	Civets, Genets,* Lingsangs, Mongooses, and Fossas
	Herpestidae	All Species	Mongooses*
	Hyaenidae	All Species	Hyenas <u>and Aardwolves</u> *
	<del>Protelidae</del>	<del><i>Proteles cristatus</i></del>	<del>Aardwolf</del> *
Felidae	All Species	Cats*	
Chiroptera		All Species	Bats*
Lagomorpha	Leporidae	<i>Lepus europeaeus</i>	European hare
		<i>Oryctolagus cuniculus</i>	European rabbit
Rodentia		All species native to Africa	All species native to Africa
	Sciuridae	<i>Cynomys</i> spp.	Prairie dogs

<b>MOLLUSKS:</b>			
Order	Family	Genus/Species	Common Name
Neotaenioglossa	Hydrobiidae	<i>Potamopyrgus antipodarum</i>	New Zealand mudsnail
Veneroida	Dreissenidae	<i>Dreissena bugensis</i>	Quagga mussel
		<i>Dreissena polymorpha</i>	Zebra mussel



<b>REPTILES:</b>			
Order	Family	Genus/Species	Common Name
<u>Crocodylia</u>	Alligatoridae	All species	Alligators, caimans*
	Crocodylidae	All species	Crocodiles*
	Gavialidae	All species	Gavials*
Squamata	Colubridae	Boiga irregularis	Brown tree snake*
<b>CRUSTACEANS:</b>			
Order	Family	Genus/Species	Common Name
Decapoda	Cambaridae	Orconectes rusticus	Rusty crayfish
	Parastacidae	Cherax spp.	Australian crayfish
	Varunidea	Eriocheir sinensis	Chinese mitten crab

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17 B. Temporary possession permit for certain animals. Notwithstanding the permitting  
18 requirements of subsection A, a person, company or corporation possessing any nonnative  
19 (exotic) animal, designated with an asterisk (\*) in subsection A, prior to July 1, 1992, must  
20 declare such possession in writing to the department by January 1, 1993. This written declaration  
21 shall serve as a permit for possession only, is not transferable, and must be renewed every five  
22 years. This written declaration must include species name, common name, number of  
23 individuals, date or dates acquired, sex (if possible), estimated age, height or length, and other  
24 characteristics such as bands and band numbers, tattoos, registration numbers, coloration, and  
25 specific markings. Possession transfer will require a new permit according to the requirements of  
26 this subsection.

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28 C. Exception for certain monk parakeets. A permit is not required for monk parakeets (quakers)  
29 that have been captive bred and are closed-banded with a seamless band.

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31 D. Exception for parts or products. A permit is not required for parts or products of those  
32 nonnative (exotic) animals listed in subsection A that may be used in the manufacture of  
33 products or used in scientific research, provided that such parts or products be packaged outside  
34 the Commonwealth by any person, company, or corporation duly licensed by the state in which  
35 the parts originate. Such packages may be transported into the Commonwealth, consistent with  
36 other state laws and regulations, so long as the original package remains unbroken, unopened and  
37 intact until its point of destination is reached. Documentation concerning the type and cost of the  
38 animal parts ordered, the purpose and date of the order, point and date of shipping, and date of  
39 receiving shall be kept by the person, business or institution ordering such nonnative (exotic)  
40 animal parts. Such documentation shall be open to inspection by a representative of the  
41 Department of Game and Inland Fisheries.

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43 E. Exception for certain mammals. Nonnative (exotic) mammals listed in subsection A, except  
44 members of the Cervidae family, African rodents, and prairie dogs, that are imported or  
45 possessed by dealers, exhibitors, transporters, and researchers who are licensed or registered by

46 the United States Department of Agriculture under the Animal Welfare Act (7 USC §§ 2131 et  
47 seq.) will be deemed to be permitted pursuant to this section, provided that those individuals  
48 wanting to import such animals notify the department 24 hours prior to importation with a list of  
49 animals to be imported, a schedule of dates and locations where those animals will be housed  
50 while in the Commonwealth, and a copy of the current license or licenses or registration or  
51 registrations from the U.S. Department of Agriculture, and further provided that such animals  
52 shall not be liberated within the Commonwealth.

53

54 F. Exception for prairie dogs. The effective date of listing of prairie dogs under subsection A of  
55 this section shall be January 1, 1998. Prairie dogs possessed in captivity in Virginia on  
56 December 31, 1997, may be maintained in captivity until the animals' deaths, but they may not  
57 be sold on or after January 1, 1998 without a permit.

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59 G. Exception for snakehead fish. Anglers may legally harvest snakehead fish of the family  
60 Channidea, provided that they immediately kill such fish and that they notify the Department, as  
61 soon as practicable, of such actions.

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63 H. All other nonnative (exotic) animals. All other nonnative (exotic) animals not listed in  
64 subsection A of this section may be possessed, purchased, and sold; provided, that such animals  
65 shall be subject to all applicable local, state, and federal laws and regulations, including those  
66 that apply to threatened/endangered species, and further provided, that such animals shall not be  
67 liberated within the Commonwealth.

### **RATIONALE:**

In 1950, the Virginia General Assembly empowered the Board of Game and Inland Fisheries to regulate animals identified as “predatory or undesirable.” Animals are classified as such because they pose a threat to native and naturalized wildlife in Virginia via the introduction of disease; direct competition for food and habitats; outright displacement; etc. The Board adopted regulations in 1992 that specifically identify nonnative (exotic) animals that are “predatory or undesirable,” and the conditions under which individuals could possess such animals in Virginia. The list and conditions have since been amended nine times, usually to add species to the list or clarify the conditions. The intent of these regulations is to be as permissive as possible in allowing the public the freedom to possess and own a range of wildlife; however, the Board’s responsibility for protecting Virginia’s native and naturalized species necessitate that this list and the conditions be updated as new information documents potentially harmful impacts of exotics on the state’s indigenous wildlife.

The marbled crayfish was first discovered in the German pet trade during the 1990s. They have no known origin, but it has become widely accepted that the species belongs to the genus *Procambarus*, which is native to North and Central America. However, there are currently no known established populations of marbled crayfish in these areas. Since the marbled crayfish is in the *Procambarus* genus, it is likely this species would be able to compete with other crayfishes in the Americas. They have been introduced to natural ecosystems in Madagascar, Japan and multiple countries throughout Europe. Although the implications of these introductions have yet to be determined, it is expected the marbled crayfish will successfully compete with and possibly extirpate some of the native crayfishes in these countries.

There is growing concern regarding the potential for the marbled crayfish to become established in North American aquatic ecosystems and displace or possibly extirpate native crayfish species. Given that the marbled crayfish is parthenogenic, commonly known as “self-cloning,” it has the potential and ability to colonize lakes and rivers with the introduction of only one individual. Once established, it likely will compete with native crayfishes and possibly spread crayfish plaque (*Aphanomyces astaci*) and other diseases.

Impacts from the introduction of non-native crayfish species have become a significant problem in many areas of the United States, and, in some cases, the main impact is on native crayfish populations. When introduced outside of their native ranges, crayfishes have impacted native species tremendously due to competition for habitat and food, increased predation, and habitat alteration. Recent research has found that juvenile marbled crayfish could equally compete with juvenile red swamp crayfish (*Procambarus clarkii*), another exotic species in Virginia, for food and habitat resources. This may indicate that marbled crayfish has similar or better invasive potential than the red swamp crayfish. Red swamp crayfish have become a naturalized species in Virginia and successfully invaded aquatic ecosystem around the world. Recently the Missouri Department of Conservation and Maryland Department of Natural Resources have banned the sale, possession, and importation of marbled crayfish.

Based on its potential threats to Virginia’s native wildlife, the final staff recommendation is that the marbled crayfish be declared as “predatory and undesirable” under 4 VAC 15-30-40, subsection A, and subject to the permitting requirements of animals included on this list. Additionally, the final staff recommendation is that the list be updated to reflect current scientific and common names.

## **ENDANGERED AND THREATENED SPECIES**

**4 VAC 15-20. DEFINITIONS AND MISCELLANEOUS: IN GENERAL.**

**4 VAC 15-20-130. Definitions and Miscellaneous: In General; Endangered and threatened species; adoption of federal list; additional species enumerated.**

**SUMMARY:**

The proposal is to update the Virginia List of Endangered and Threatened Species to add one species to and remove one species from the Virginia List of Endangered and Threatened Species and to adopt the updated and modified federal list of endangered and threatened wildlife species. Additionally, staff is recommending the removal of four species (Virginia northern flying squirrel, spectaclecase, sheepnose, and snuffbox) from the Virginia List of Endangered and Threatened Species because these species have recently been added to the federal list of endangered and threatened species. Counsel has further requested the inclusion of a more specific date reference of the federal list for clarity. The final staff recommendation is to adopt the proposal as presented below.

**FINAL RECOMMENDED LANGUAGE OF AMENDMENT:**

1 **4 VAC 15-20-130. Endangered and threatened species; adoption of federal list; additional**  
2 **species enumerated.**  
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4 A. The board hereby adopts the Federal Endangered and Threatened Species List, Endangered  
5 Species Act of December 28, 1973 (16 USC §§1531-1543), as amended, [as of August 13,  
6 2012,] and declares all species listed thereon to be endangered or threatened species in the  
7 Commonwealth. Pursuant to Code § 29.1-103.12, the director of the department is hereby  
8 delegated authority to propose adoption of modifications and amendments to the Federal  
9 Endangered and Threatened Species List, in accordance with the procedures of Code §§ 29.1-  
10 501 and 29.1.502.

11 B. In addition to the provisions of subsection A, the following species are declared endangered  
12 or threatened in this Commonwealth, and are afforded the protection provided by Article 6  
13 (§29.1-563 et seq.) of Chapter 5 of Title 29.1 of the Code of Virginia:  
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15 1. Fish:

16 Endangered:

Dace, Tennessee	Phoxinus tennesseensis
Darter, sharphead	Etheostoma acuticeps
Darter, variegate	Etheostoma variatum
Sunfish, blackbanded	Enneacanthus chaetodon

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18 Threatened:

Darter, Carolina	Etheostoma collis
Darter, golden	Etheostoma denoncourti
Darter, greenfin	Etheostoma chlorbranchium
Darter, longhead	Percina macrocephala

Darter, western sand	<i>Ammocrypta clara</i>
Madtom, orangefin	<i>Noturus gilberti</i>
Paddlefish	<i>Polyodon spathula</i>
Shiner, emerald	<i>Notropis atherinoides</i>
Shiner, steelcolor	<i>Cyprinella whipplei</i>
Shiner, whitemouth	<i>Notropis alborus</i>

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2. Amphibians:

Endangered:

Salamander, eastern tiger	<i>Ambystoma tigrinum tigrinum</i>
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Threatened:

Salamander, Mabee's	<i>Ambystoma mabeei</i>
Treefrog, barking	<i>Hyla gratiosa</i>

3. Reptiles:

Endangered:

Rattlesnake, canebrake (Coastal Plain population of timber rattlesnake)	<i>Crotalus horridus</i>
Turtle, bog	<i>Glyptemys muhlenbergii</i>
Turtle, eastern_chicken	<i>Deirochelys reticularia reticularia</i>

Threatened:

Lizard, eastern glass	<i>Ophisaurus ventralis</i>
Turtle, wood	<i>Glyptemys insculpta</i>

4. Birds:

Endangered:

Plover, Wilson's	<i>Charadrius wilsonia</i>
Rail, black	<i>Laterallus jamaicensis</i>
Wren, Bewick's	<i>Thryomanes bewickii</i>

Threatened:

Eagle, bald	<i>Haliaeetus leucocephalus</i>
Falcon, peregrine	<i>Falco peregrinus</i>
Sandpiper, upland	<i>Bartramia longicauda</i>
Shrike, loggerhead	<i>Lanius ludovicianus</i>
Sparrow, Bachman's	<i>Aimophila aestivalis</i>
Sparrow, Henslow's	<i>Ammodrammus henslowii</i>
Tern, gull-billed	<i>Sterna nilotica</i>

5. Mammals:

Endangered:

Bat, Rafinesque's eastern big-eared	<i>Corynorhinus rafinesquii macrotis</i>
Hare, snowshoe	<i>Lepus americanus</i>

Shrew, American water	<i>Sorex palustris</i>
[Squirrel, Virginia northern flying	<i>Glaucomys sabrinus fuscus</i> ]
Vole, rock	<i>Microtus chrotorrhinus</i>

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Threatened:

Shrew, Dismal Swamp southeastern	<i>Sorex longirostris fisheri</i>
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6. Molluscs:

Endangered:

Ghostsnaail, thankless	<i>Holsingeria unthinksensis</i>
Coil, rubble	<i>Helicodiscus lirellus</i>
Coil, shaggy	<i>Helicodiscus diadema</i>
Deertoe	<i>Truncilla truncata</i>
Elephantear	<i>Elliptio crassidens</i>
Elimia, spider	<i>Elimia arachnoidea</i>
Floater, brook	<i>Alasmidonta varicosa</i>
Heelsplitter, Tennessee	<i>Lasmigona holstonia</i>
Lilliput, purple	<i>Toxolasma lividus</i>
Mussel, slippershell	<i>Alasmidonta viridis</i>
Pigtoe, Ohio	<i>Pleurobema cordatum</i>
Pigtoe, pyramid	<i>Pleurobema rubrum</i>
[Snuffbox	<i>Epioblasma triquetra</i> ]
[Spectaclecase	<i>Cumberlandia monodonta</i> ]
Springsnail, Appalachian	<i>Fontigens bottimeri</i>
Springsnail (no common name)	<i>Fonitgens morrisoni</i>
Supercoil, spirit	<i>Paravitrea hera</i>

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Threatened:

Floater, green	<i>Lasmigona subviridis</i>
Papershell, fragile	<i>Leptodea fragilis</i>
Pearlymussel, slabside	<i>Lexingtonia dolabelloides</i>
Pigtoe, Atlantic	<i>Fusconaia masoni</i>
Pimpleback	<i>Quadrula pustulosa pustulosa</i>
Pistolgrip	<i>Tritogonia verrucosa</i>
Riversnail, spiny	<i>Io fluvialis</i>
Sandshell, black	<i>Ligumia recta</i>
[Sheepnose	<i>Plethobasus cyphus</i> ]
Supercoil, brown	<i>Paravitrea septadens</i>

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7. Arthropods:

Threatened:

Amphipod, Madison Cave	<i>Stygobromus stegerorum</i>
Pseudotremia, Ellett Valley	<i>Pseudotremia cavernarum</i>
Xystodesmid, Laurel Creek	<i>Sigmoria whiteheadi</i>

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8. Crustaceans:

Endangered:

Crayfish, Big Sandy	Cambarus veteranus
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C. It shall be unlawful to take, transport, process, sell, or offer for sale within the Commonwealth any threatened or endangered species of fish or wildlife except as authorized by law.

**RATIONALE:**

***Changes to the State List of Endangered and Threatened Species***

- ***Addition of the black rail as a state endangered species:*** The black rail (*Laterallus jamaicensis*) is the smallest rail that occurs in North America. Black rails inhabit tidal marshes and freshwater wetlands throughout the Americas. Eastern coastal populations breed from New York to Florida along the Atlantic Coast and in Florida and Texas along the Gulf coast. The Eastern Black Rail is at least partially migratory, wintering in the southern part of its breeding range from New Jersey to Florida and along the Gulf Coast from Florida to Texas.

The black rail (*Laterallus jamaicensis*) is one of the most threatened avian species in Virginia and throughout the mid-Atlantic region. A recent study, which represents the first attempt to systematically determine the abundance and distribution of black rails in Virginia, suggests the species' current distribution is confined to the marshes along the eastern shore of the Chesapeake Bay in Accomack County. These nocturnal efforts detected a coastwide total of only 16 individuals at 12 points. The greatest concentration of rails was on Saxis WMA where six black rails were detected at four survey points. No Black Rails were detected on the seaside of the Delmarva Peninsula, the western shore of the Chesapeake Bay, along the James, York or Nansemond rivers, or in Back Bay.

The reasons for the near extirpation of Virginia coastal breeding population are not completely understood, but may include habitat loss and degradation, predation, low reproductive rates, low overwinter survival, and environmental contaminants. The Chesapeake Bay marshes of the Delmarva Peninsula from Dorchester County, Maryland, through Accomack County, Virginia, have long been considered the most important region in the Mid-Atlantic for black rails. Black rail surveys conducted on the bayside and seaside of the Maryland's Delmarva Peninsula in 1992 and again in 2007 and reported an 85 % decline in the number of locations where they were found during this 15 year period. This result suggests that recent dramatic population declines are rapid and devastating and require immediate attention.

In Virginia, the species has been identified as a Tier I species ("critical conservation need, faces an extremely high risk of extinction or extirpation") in Virginia's Wildlife Action Plan. The inclusion of this species on the state list of endangered and threatened species reflects more accurately its rare status in Virginia and affords the Department the opportunity to recommend appropriate mitigation measures to any permitted projects that



may cause or result in negative impacts. The final staff recommendation is that the black rail be included as “endangered” under subsection B of 4 VAC 15-20-130.

- ***Removal of the Virginia northern flying squirrel and three mussel species (sheepnose, spectaclecase, and snuffbox) as endangered or threatened species:*** On March 15, 2012, the U.S. Fish and Wildlife Service officially designated the snuffbox, a species of mussel in the Tennessee River watershed, as endangered, and that species now occurs on the federal list of endangered and threatened species. On April 14, 2012, that agency took similar action with the spectaclecase and sheepnose, two species of freshwater mussels also from the Tennessee River watershed. Lastly, in 2008, the U.S. Fish and Wildlife Service removed the Virginia northern flying squirrel from the federal list of endangered and threatened species because of the secure status of the species in its core range in West Virginia. The Board of Game and Inland Fisheries added this subspecies to the state list of endangered and threatened species as of January 1, 2011, because of concerns about potential loss of habitat in the few areas that this species occupied in Virginia. As the result of a court order, however, the U.S. Fish and Wildlife Service has included this subspecies again on the federal list of endangered and threatened species, effective June 17, 2011. The intent of 4 VAC 15-20-130 is for the Board to identify as state endangered or threatened those species that do not already appear on the federal list. Since these four species are now on the federal list, staff’s final recommendation is to remove them from the state list itemized in this section of regulation.
- ***Delisting/removal of the bald eagle as a state threatened species:*** On August 9, 2007, the bald eagle was removed from the federal list of threatened and endangered species. After nearly disappearing from most of the United States decades ago, the bald eagle has made a strong recovery. The two main factors that led to the recovery of the bald eagle were the banning of the pesticide DDT and the protection of habitat for nesting, feeding, and roosting sites. Clearly, this recovery could not have been accomplished without the support and cooperation of many private and public landowners, particularly in the establishment of protective buffer zones around nest trees and implementation of management plans for nest sites and roosts.

While the goals for recovery and delisting were met at national scales, the Virginia Department of Game and Inland Fisheries remained concerned that existing habitat protection programs were insufficient in the Chesapeake Bay Recovery Region to justify delisting of this population of eagles. Furthermore, the specific habitat protection and management criteria for delisting the Bay population, as established in the 1990 Chesapeake Bay Region Bald Eagle Recovery Plan, had not actually been achieved. In response to the federal delisting proposal, DGIF staff recommended that four conditions be included in the final delisting decision, including: (1) the U.S. Fish and Wildlife Service (Service) should ensure interagency coordination and funding of the bald eagle monitoring plan for the Chesapeake Bay Recovery Region, and the monitoring effort should continue for a minimum of 15 years to adequately measure these eagles’ response to delisting; (2) eagle habitat availability should be assessed throughout the Chesapeake Bay watershed as a federally-funded component of the monitoring plan; (3) the ecological and behavioral distinctness of the Chesapeake Bay eagle population should be

assessed as a federally-funded component of the monitoring plan; and (4) an interagency habitat protection and management plan should be developed and implemented during the monitoring period. Staff considered it imperative that the Chesapeake Bay regional population and its habitat be monitored to ensure that, upon delisting, eagles do not fall victim to accelerated habitat degradation and loss, precipitating a downward population trend that would require relisting under the federal Endangered Species Act.

In the 1970s, bald eagle breeding pairs in the Chesapeake Bay reached an estimated low of about 30 pairs. In 2011, the Center for Conservation Biology at the College of William and Mary surveyed over 1,000 bald eagle nest structures across all tributaries of the lower Chesapeake and documented more than 730 pairs of eagles in Virginia, with the highest concentration occurring in the coastal part of the state. That same year, the Center documented the highest eagle chick production recorded in the 35-year history of the eagle survey. The bald eagle population along the historic James River has increased from zero pairs in the 1970s to 174 nesting pairs in 2011, per the Center's census, and is one of the best examples of how this species has made a dramatic recovery within the Chesapeake Bay watershed. Bald eagles have demonstrated a tolerance of disturbance and proximity to human activity previously unknown. Importantly, measures remain in place through the Federal Bald and Golden Eagle Protection Act and the federal Migratory Bird Treaty Act that continue to support regional and national eagle conservation efforts. As a result of the rebound of eagle numbers, productivity success, and on-going conservation of habitats through the federal acts, the final staff recommendation is that the bald eagle be removed from the state list of threatened and endangered species.

***Adoption of the updated and modified federal list of endangered and threatened wildlife species:*** Maintaining the currency of the Board's adoption of the federal list is essential to clarifying the state and federal status of each affected species and to ensuring compliance with our Cooperative Agreements with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service regarding interagency management of these species. The inclusion of a specific date reference provides clarity as to the date of last update of the federal list.

**Virginia Department of Game and Inland Fisheries**  
**List of Native and Naturalized Fauna of Virginia**  
**March, 2012**

(\* denotes naturalized species; \*\* denotes species native to some areas of Virginia and naturalized in other areas of Virginia)

<u>Common Name</u>	<u>Scientific Name</u>
<b><u>FISHES:</u></b>	
<u>Freshwater Fishes:</u>	
Alewife	<i>Alosa pseudoharengus</i>
American brook lamprey	<i>Lampetra appendix</i>
American eel	<i>Anguilla rostrata</i>
American shad	<i>Alosa sapidissima</i>
Appalachia darter	<i>Percina gymnocephala</i>
Ashy darter	<i>Etheostoma cinereum</i>
Atlantic sturgeon	<i>Acipenser oxyrhynchus</i>
Banded darter	<i>Etheostoma zonale</i>
Banded killifish	<i>Fundulus diaphanus</i>
Banded pygmy sunfish	<i>Elassoma zonatum</i>
Banded sculpin	<i>Cottus carolinae</i>
Banded sunfish	<i>Enneacanthus obesus</i>
Bigeye chub	<i>Hybopsis amblops</i>
Bigeye jumprock	<i>Moxostoma ariommum</i>
Bigmouth chub	<i>Nocomis platyrhynchus</i>
Black bullhead	<i>Ameiurus melas</i>
Black crappie	<i>Pomoxis nigromaculatus</i>
Black jumprock	<i>Moxostoma cervinum</i>
Black redhorse	<i>Moxostoma duquesnei</i>
Black sculpin	<i>Cottus baileyi</i>
Blackbanded sunfish	<i>Enneacanthus chaetodon</i>
Blacknose dace	<i>Rhinichthys atratulus</i>
Blackside dace	<i>Chrosomus cumberlandensis</i>
Blackside darter	<i>Percina maculata</i>
Blotched chub	<i>Erimystax insignis</i>
Blotchside logperch	<i>Percina burtoni</i>
Blue catfish *	<i>Ictalurus furcatus</i> *
Blue Ridge sculpin	<i>Cottus caeruleomentum</i>

Blueback herring	<i>Alosa aestivalis</i>
Bluebreast darter	<i>Etheostoma camurum</i>
Bluegill	<i>Lepomis macrochirus</i>
Bluehead chub	<i>Nocomis leptocephalus</i>
Blueside darter	<i>Etheostoma jessiae</i>
Bluespar darter	<i>Etheostoma meadiae</i>
Bluespotted sunfish	<i>Enneacanthus gloriosus</i>
Bluestone sculpin	<i>Cottus sp. 1</i>
Bluntnose minnow	<i>Pimephales notatus</i>
Bowfin	<i>Amia calva</i>
Bridle shiner	<i>Notropis bifrenatus</i>
Brook silverside	<i>Labidesthes sicculus</i>
Brook trout	<i>Salvelinus fontinalis</i>
Brown bullhead	<i>Ameiurus nebulosus</i>
Brown trout *	<i>Salmo trutta *</i>
Bull chub	<i>Nocomis raneyi</i>
Bullhead minnow	<i>Pimephales vigilax</i>
Candy darter	<i>Etheostoma osburni</i>
Carolina darter	<i>Etheostoma collis</i>
Carolina fantail darter	<i>Etheostoma brevispinum</i>
Central stoneroller	<i>Campostoma anomalum</i>
Chain pickerel	<i>Esox niger</i>
Chainback darter	<i>Percina nevisense</i>
Channel catfish	<i>Ictalurus punctatus</i>
Channel darter	<i>Percina copelandi</i>
Clinch dace	<i>Chrosomus sp. cf. saylori</i>
Clinch sculpin	<i>Cottus sp. 4</i>
Comely shiner	<i>Notropis amoenus</i>
Common carp	<i>Cyprinus carpio</i>
Common shiner	<i>Luxilus cornutus</i>
Creek chub	<i>Semotilus atromaculatus</i>
Creek chubsucker	<i>Erimyzon oblongus</i>
Crescent shiner	<i>Luxilus cerasinus</i>
Cutlips minnow	<i>Exoglossum maxillingua</i>
Dollar sunfish	<i>Lepomis marginatus</i>
Dusky darter	<i>Percina sciera</i>
Duskytail darter	<i>Etheostoma percnum</i>
Eastern mosquitofish **	<i>Gambusia holbrooki **</i>
Eastern mudminnow	<i>Umbra pygmaea</i>
Eastern silvery minnow	<i>Hybognathus regius</i>
Emerald shiner	<i>Notropis atherinoides</i>

Fallfish	<i>Semotilus corporalis</i>
Fantail darter	<i>Etheostoma flabellare</i>
Fathead minnow	<i>Pimephales promelas</i>
Fatlips minnow	<i>Phenacobius crassilabrum</i>
Fieryblack shiner	<i>Cyprinella pyrrhomelas</i>
Flat bullhead	<i>Ameiurus platycephalus</i>
Flathead catfish **	<i>Pylodictis olivaris **</i>
Flier	<i>Centrarchus macropterus</i>
Fourspine stickleback	<i>Apeltes quadracus</i>
Freshwater drum	<i>Aplodinotus grunniens</i>
Gilt darter	<i>Percina evides</i>
Gizzard shad	<i>Dorosoma cepedianum</i>
Glassy darter	<i>Etheostoma vitreum</i>
Golden darter	<i>Etheostoma denoncourti</i>
Golden redbhorse	<i>Moxostoma erythrurum</i>
Golden shiner	<i>Notemigonus crysoleucas</i>
Goldfish *	<i>Carassius auratus *</i>
Grass carp *	<i>Ctenopharyngodon idella *</i>
Green sunfish	<i>Lepomis cyanellus</i>
Greenfin darter	<i>Etheostoma chlorobranchium</i>
Greenside darter	<i>Etheostoma blennioides</i>
Harelip sucker	<i>Lagochila lacera</i>
Hickory shad	<i>Alosa mediocris</i>
Highback chub	<i>Hybopsis hypsinotus</i>
Highfin shiner	<i>Notropis altipinnis</i>
Highland (=southern rosyface; =redface) shiner	<i>Notropis micropteryx</i>
Hogchoker	<i>Trinectes maculatus</i>
Holston sculpin	<i>Cottus sp. 5</i>
Inland silverside	<i>Menidia beryllina</i>
Ironcolor shiner	<i>Notropis chalybaeus</i>
Johnny darter	<i>Etheostoma nigrum</i>
Kanawha darter	<i>Etheostoma kanawhae</i>
Kanawha minnow	<i>Phenacobius teretulus</i>
Lake chubsucker	<i>Erimyzon sucetta</i>
Largemouth bass **	<i>Micropterus salmoides **</i>
Largescale stoneroller	<i>Campostoma oligolepis</i>
Least brook lamprey	<i>Lampetra aepyptera</i>
Lined topminnow	<i>Fundulus lineolatus</i>
Logperch	<i>Percina caprodes</i>
Longear sunfish	<i>Lepomis megalotis</i>
Longfin darter	<i>Etheostoma longimanum</i>

Longhead darter	<i>Percina macrocephala</i>
Longnose dace	<i>Rhinichthys cataractae</i>
Longnose gar	<i>Lepisosteus osseus</i>
Margined madtom	<i>Noturus insignis</i>
Marsh killifish	<i>Fundulus confluentus</i>
Mimic shiner	<i>Notropis volucellus</i>
Mirror shiner	<i>Notropis spectrunculus</i>
Mottled sculpin	<i>Cottus bairdii</i>
Mountain brook lamprey	<i>Ichthyomyzon greeleyi</i>
Mountain madtom	<i>Noturus eleutherus</i>
Mountain redbelly dace	<i>Chrosomus oreas</i>
Mountain shiner	<i>Lythrurus lirus</i>
Mud sunfish	<i>Acantharchus pomotis</i>
Mummichog	<i>Fundulus heteroclitus</i>
Muskellunge *	<i>Esox masquinongy</i> *
New River shiner	<i>Notropis scabriceps</i>
Northern hog sucker	<i>Hypentelium nigricans</i>
Northern pike	<i>Esox lucius</i>
Northern snakehead *	<i>Channa argus</i> *
Northern studfish	<i>Fundulus catenatus</i>
Notchlip redhorse	<i>Moxostoma collapsum</i>
Ohio lamprey	<i>Ichthyomyzon bdellium</i>
Olive darter	<i>Percina squamata</i>
Orangefin madtom	<i>Noturus gilberti</i>
Orangethroat darter	<i>Etheostoma spectabile</i>
Paddlefish	<i>Polyodon spathula</i>
Pearl dace	<i>Margaricus margarita</i>
Piedmont darter	<i>Percina crassa</i>
Pirate perch	<i>Aphredoderus sayanus sayanus</i>
Popeye shiner	<i>Notropis ariommus</i>
Potomac sculpin	<i>Cottus girardi</i>
Pumpkinseed	<i>Lepomis gibbosus</i>
Quillback	<i>Carpoides cyprinus</i>
Rainbow darter	<i>Etheostoma caeruleum</i>
Rainbow trout *	<i>Onchorynchus mykiss</i> *
Rainwater killifish	<i>Lucania parva</i>
Redbreast sunfish	<i>Lepomis auritus</i>
Redear sunfish	<i>Lepomis microlophus</i>
Redfin pickerel	<i>Esox americanus americanus</i>
Redline darter	<i>Etheostoma rufilineatum</i>
Redlip shiner	<i>Notropis chiliticus</i>

River carpsucker	<i>Carpionodes carpio</i>
River chub	<i>Nocomis micropogon</i>
River redhorse	<i>Moxostoma carinatum</i>
Riverweed darter	<i>Etheostoma podostemone</i>
Roanoke bass	<i>Ambloplites cavifrons</i>
Roanoke darter	<i>Percina roanoka</i>
Roanoke hog sucker	<i>Hypentelium roanokense</i>
Roanoke logperch	<i>Percina rex</i>
Robust redhorse	<i>Moxostoma robustum</i>
Rock bass	<i>Ambloplites rupestris</i>
Rosefin shiner	<i>Lythrurus ardens</i>
Rosyface shiner	<i>Notropis rubellus</i>
Rosyside dace	<i>Clinostomus funduloides</i>
Roughhead shiner	<i>Notropis semperasper</i>
Rustyside sucker	<i>Thoburnia hamiltoni</i>
Saffron shiner	<i>Notropis rubricroceus</i>
Sand shiner	<i>Notropis stramineus</i>
Sandbar shiner	<i>Notropis scepticus</i>
Satinfin shiner	<i>Cyprinella analostana</i>
Sauger	<i>Sander canadensis</i>
Sawcheek darter	<i>Etheostoma serrifer</i>
Sawfin shiner	<i>Notropis spp.A</i>
Sea lamprey	<i>Petromyzon marinus</i>
Sharphead darter	<i>Etheostoma acuticeps</i>
Sharpnose darter	<i>Percina oxyrhynchus</i>
Sheepshead minnow	<i>Cyprinodon variegatus</i>
Shield darter	<i>Percina peltata</i>
Shorthead redhorse	<i>Moxostoma macrolepidotum</i>
Shortnose sturgeon	<i>Acipenser brevirostrum</i>
Silver perch	<i>Bairdiella chrysoura</i>
Silver redhorse	<i>Moxostoma anisurum</i>
Silver shiner	<i>Notropis photogenis</i>
Silverjaw minnow	<i>Notropis buccatus</i>
Slender chub	<i>Erimystax cahni</i>
Slimy sculpin	<i>Cottus cognatus</i>
Smallfin redhorse	<i>Moxostoma robustum</i>
Smallmouth bass **	<i>Micropterus dolomieu **</i>
Smallmouth redhorse	<i>Moxostoma breviceps</i>
Snail bullhead	<i>Ameirus brunneus</i>
Snubnose darter	<i>Etheostoma simoterum</i>
Speckled chub	<i>Macrhybosis aestivalis</i>

Speckled darter	<i>Etheostoma stigmaeum</i>
Speckled killifish	<i>Fundulus rathbuni</i>
Spotfin chub	<i>Erimonax monachus</i>
Spotfin killifish	<i>Fundulus luciae</i>
Spotfin shiner	<i>Cyprinella spiloptera</i>
Spottail shiner	<i>Notropis hudsonius</i>
Spotted bass	<i>Micropterus punctulatus</i>
Spotted madtom	<i>Noturus insignis ssp. A</i>
Stargazing minnow	<i>Phenacobius uranops</i>
Steelcolor shiner	<i>Cyprinella whipplei</i>
Stonecat	<i>Noturus flavus</i>
Streamline chub	<i>Erimystax dissimilis</i>
Stripeback darter	<i>Percina notogramma</i>
Striped bass	<i>Morone saxatilis</i>
Striped shiner	<i>Luxilus chrysocephalus</i>
Stripetail darter	<i>Etheostoma kennicotti</i>
Suckermouth minnow	<i>Phenacobius mirabilis</i>
Swallowtail shiner	<i>Notropis procne</i>
Swamp darter	<i>Etheostoma fusiforme</i>
Swampfish	<i>Chologaster cornuta</i>
Swannanoa darter	<i>Etheostoma swannanoa</i>
Tadpole madtom	<i>Noturus gyrinus</i>
Tangerine darter	<i>Percina aurantiaca</i>
Telescope shiner	<i>Notropis telescopus</i>
Tennessee dace	<i>Chrosomus tennesseensis</i>
Tennessee darter	<i>Etheostoma tennesseense</i>
Tennessee shiner	<i>Notropis leuciodus</i>
Tessellated darter	<i>Etheostoma olmstedi</i>
Thicklip chub	<i>Cyprinella labrosa</i>
Threadfin shad	<i>Dorosoma petenense</i>
Threespine stickleback	<i>Gasterosteus aculeatus</i>
Tippecanoe darter	<i>Etheostoma tippecanoe</i>
Tonguetied minnow	<i>Exoglossum laurae</i>
Torrent sucker	<i>Thoburnia rhothoeca</i>
Trout-perch	<i>Percopsis omiscomaycus</i>
Variagate darter	<i>Etheostoma variatum</i>
V-lip redhorse	<i>Moxostoma papillosum</i>
Walleye	<i>Sander vitreus vitreus</i>
Warmouth	<i>Lepomis gulosus</i>
Warpaint shiner	<i>Luxilus coccogenis</i>
Western blacknose dace	<i>Rhinichthys obtusus</i>



Western sand darter	<i>Ammocrypta clara</i>
White bass	<i>Morone chrysops</i>
White catfish	<i>Ameiurus catus</i>
White crappie	<i>Pomoxis annularis</i>
White perch	<i>Morone americana</i>
White shiner	<i>Luxilus albeolus</i>
White sucker	<i>Catostomus commersoni</i>
Whitefin shiner	<i>Cyprinella nivea</i>
Whitemouth shiner	<i>Notropis alborus</i>
Whitetail shiner	<i>Cyprinella galactura</i>
Wounded darter	<i>Etheostoma vulneratum</i>
Yellow bullhead	<i>Ameiurus natalis</i>
Yellow perch	<i>Perca flavescens</i>
Yellowfin madtom	<i>Noturus flavipinnis</i>
<u>Marine/Brackish Water Fishes in the Albemarle &amp; Currituck Sound Drainages :</u>	
Atlantic croaker	<i>Micropogonias undulatus</i>
Atlantic menhaden	<i>Brevoortia tyrannus</i>
Atlantic needlefish	<i>Strongylura marina</i>
Atlantic silverside	<i>Menidia menidia</i>
Bay anchovy	<i>Anchoa mitchilli</i>
Black drum	<i>Pogonias cromis</i>
Black sea bass	<i>Centropristis striata</i>
Bluefish	<i>Pomatomus saltatrix</i>
Cownose ray	<i>Rhinoptera bonasus</i>
Gizzard shad	<i>Dorasoma cepedianum</i>
Hogchoker	<u>Trinectes maculatus</u>
Ladyfish	<i>Elops saurus</i>
Mummichog	<i>Fundulus heteroclitus</i>
Oyster toadfish	<i>Opsanus tau</i>
Pipefish	<i>Syngnathus sp.</i>
Red drum	<i>Sciaenops ocellatus</i>
Southern flounder	<i>Paralichthys lethostigma</i>
Spot	<i>Leiostomus xanthurus</i>
Spotted sea trout	<i>Cynoscion nebulosus</i>
Striped bass	<i>Monrone saxatilis</i>
Striped mullet	<i>Mugil cephalus</i>
Summer flounder	<i>Paralichthys dentatus</i>
Weakfish (gray trout)	<i>Cynoscion regalis</i>

<b><u>AMPHIBIANS:</u></b>	
	<u>Frogs &amp; Toads:</u>
American bullfrog	<i>Lithobates catesbeianus</i>
Barking treefrog	<i>Hyla gratiosa</i>
Brimley's chorus frog	<i>Pseudacris brimleyi</i>
Carpenter frog	<i>Lithobates virgatipes</i>
Coastal Plain cricket frog	<i>Acris gryllus gryllus</i>
Cope's gray treefrog	<i>Hyla chrysoscelis</i>
Eastern American toad	<i>Anaxyrus americanus americanus</i>
Eastern cricket frog	<i>Acris crepitans</i>
Eastern narrow-mouthed toad	<i>Gastrophryne carolinensis</i>
Eastern spadefoot	<i>Scaphiopus holbrookii</i>
Fowler's toad	<i>Anaxyrus fowleri</i>
Gray treefrog	<i>Hyla versicolor</i>
Green treefrog	<i>Hyla cinerea</i>
Little grass frog	<i>Pseudacris ocularis</i>
Mountain chorus frog	<i>Pseudacris brachyphona</i>
New Jersey chorus frog	<i>Pseudacris kalmi</i>
Northern green frog	<i>Lithobates clamitans melanota</i>
Oak toad	<i>Anaxyrus quercicus</i>
Pickerel frog	<i>Lithobates palustris</i>
Pine woods treefrog	<i>Hyla femoralis</i>
Spring peeper	<i>Pseudacris crucifer</i>
Southern chorus frog	<i>Pseudacris nigrita</i>
Southern leopard frog	<i>Lithobates sphenoccephalus</i>
Southern toad	<i>Anaxyrus terrestris</i>
Squirrel treefrog	<i>Hyla squirella</i>
Upland chorus frog	<i>Pseudacris feriarum</i>
Wood frog	<i>Lithobates sylvaticus</i>
	<u>Salamanders:</u>
Allegheny Mountain dusky salamander	<i>Desmognathus ochrophaeus</i>
Atlantic coast slimy salamander	<i>Plethodon chlorobryonis</i>
Big Levels salamander	<i>Plethodon sherando</i>
Black-bellied salamander	<i>Desmognathus quadramaculatus</i>
Black Mountain salamander	<i>Desmognathus welteri</i>
Blue Ridge red salamander	<i>Pseudotriton ruber nitidus</i>

Blue Ridge spring salamander	<i>Gyrinophilus porphyriticus danieli</i>
Blue Ridge two-lined salamander	<i>Eurycea wilderae</i>
Cave salamander	<i>Eurycea lucifuga</i>
Common mudpuppy	<i>Necturus maculosus maculosus</i>
Cow Knob salamander	<i>Plethodon punctatus</i>
Cumberland Plateau salamander	<i>Plethodon kentucki</i>
Dwarf waterdog	<i>Necturus punctatus</i>
Eastern hellbender	<i>Cryptobranchus alleganiensis alleganiensis</i>
Eastern lesser siren	<i>Siren intermedia intermedia</i>
Eastern mud salamander	<i>Pseudotriton montanus montanus</i>
Eastern red-backed salamander	<i>Plethodon cinereus</i>
Eastern tiger salamander	<i>Ambystoma tigrinum</i>
Flat-headed salamander	<i>Desmognathus planiceps</i>
Four-toed salamander	<i>Hemidactylium scutatum</i>
Greater siren	<i>Siren lacertina</i>
Green salamander	<i>Aneides aeneus</i>
Jefferson salamander	<i>Ambystoma jeffersonianum</i>
Kentucky spring salamander	<i>Gyrinophilus porphyriticus duryi</i>
Longtail salamander	<i>Eurycea longicauda longicauda</i>
Mabee's salamander	<i>Ambystoma mabeei</i>
Many-lined salamander	<i>Stereochilus marginatus</i>
Marbled salamander	<i>Ambystoma opacum</i>
Midland mud salamander	<i>Pseudotriton montanus diastictus</i>
Mole salamander	<i>Ambystoma talpoideum</i>
Northern dusky salamander	<i>Desmognathus fuscus</i>
Northern gray-cheeked salamander	<i>Plethodon montanus</i>
Northern red salamander	<i>Pseudotriton ruber ruber</i>
Northern slimy salamander	<i>Plethodon glutinosus</i>
Northern spring salamander	<i>Gyrinophilus porphyriticus porphyriticus</i>
Northern two-lined salamander	<i>Eurycea bislineata</i>
Peaks of Otter salamander	<i>Plethodon hubrichti</i>
Pigmy salamander	<i>Desmognathus wrighti</i>
Red-spotted newt	<i>Notophthalmus viridescens viridescens</i>
Seal salamander	<i>Desmognathus monticola</i>
Shenandoah Mountain salamander	<i>Plethodon virginia</i>
Shenandoah salamander	<i>Plethodon shenandoah</i>
Shovel-nosed salamander	<i>Desmognathus marmoratus</i>
Southern dusky salamander	<i>Desmognathus auriculatus</i>
Southern ravine salamander	<i>Plethodon richmondi</i>
Southern two-lined salamander	<i>Eurycea cirrigera</i>
Southern zigzag salamander	<i>Plethodon ventralis</i>

Spotted salamander	<i>Ambystoma maculatum</i>
Three-lined salamander	<i>Eurycea guttolineata</i>
Two-toed amphiuma	<i>Amphiuma means</i>
Valley and ridge salamander	<i>Plethodon hoffmani</i>
Wehrle's salamander	<i>Plethodon wehrlei</i>
Weller's salamander	<i>Plethodon welleri</i>
White-spotted slimy salamander	<i>Plethodon cylindraceus</i>
Yonahlossee salamander	<i>Plethodon yonahlossee</i>
<b><u>REPTILES:</u></b>	
<u>Lizards:</u>	
Broad-headed skink	<i>Plestiodon laticeps</i>
Common five-lined skink	<i>Plestiodon fasciatus</i>
Eastern fence lizard	<i>Sceloporus undulatus</i>
Eastern glass lizard	<i>Ophisaurus ventralis</i>
Eastern six-lined racerunner	<i>Aspidoscelis sexlineata sexlineata</i>
Eastern slender glass lizard	<i>Ophisaurus attenuatus longicaudus</i>
Little brown skink	<i>Scincella lateralis</i>
Mediterranean gecko *	<i>Hemidactylus turcicus *</i>
Northern coal skink	<i>Plestiodon anthracinus anthracinus</i>
Southeastern five-lined skink	<i>Plestiodon inexpectatus</i>
<u>Snakes:</u>	
Brown watersnake	<i>Nerodia taxispilota</i>
Canebreak rattlesnake (Coastal Plain population of timber rattlesnake)	<i>Crotalus horridus</i>
Eastern black kingsnake	<i>Lampropeltis getula nigra</i>
Eastern cottonmouth	<i>Agkistrodon piscivorus piscivorus</i>
Eastern gartersnake	<i>Thamnophis sirtalis sirtalis</i>
Eastern hog-nosed snake	<i>Heterodon platirhinos</i>
Eastern kingsnake	<i>Lampropeltis getula getula</i>
Eastern milksnake	<i>Lampropeltis triangulum triangulum</i>
Eastern mudsnake	<i>Farancia abacura abacura</i>
Eastern ratsnake	<i>Pantherophis alleghaniensis</i>
Eastern ribbonsnake	<i>Thamnophis sauritus sauritus</i>
Eastern smooth earthsnake	<i>Virginia valeriae valeriae</i>
Eastern wormsnake	<i>Carphophis amoenus amoenus</i>
Glossy crayfish snake	<i>Regina rigida rigida</i>

Mole kingsnake	<i>Lampropeltis calligaster rhombomaculata</i>
Mountain earthsnake	<i>Virginia valeriae pulchra</i>
Northern black racer	<i>Coluber constrictor constrictor</i>
Northern brownsnake	<i>Storeria dekayi dekayi</i>
Northern copperhead	<i>Agkistrodon contortrix mokasen</i>
Northern pinesnake	<i>Pituophis melanoleucus melanoleucus</i>
Northern red-bellied snake	<i>Storeria occipitomaculata occipitomaculata</i>
Northern ring-necked snake	<i>Diadophis punctatus edwardsii</i>
Northern rough greensnake	<i>Opheodrys aestivus aestivus</i>
Northern scarletsnake	<i>Cemophora coccinea copei</i>
Northern watersnake	<i>Nerodia sipedon sipedon</i>
Plain-bellied watersnake	<i>Nerodia erythrogaster</i>
Queen snake	<i>Regina septemvittata</i>
Rainbow snake	<i>Farancia erythrogramma</i>
Red cornsnake	<i>Pantherophis guttatus</i>
Rough earthsnake	<i>Virginia striatula</i>
Scarlet kingsnake	<i>Lampropeltis triangulum elapsoides</i>
Smooth greensnake	<i>Opheodrys vernalis</i>
Southeastern crowned snake	<i>Tantilla coronata</i>
Southern ring-necked snake	<i>Diadophis punctatus punctatus</i>
Timber rattlesnake	<i>Crotalus horridus</i>
	<u>Turtles:</u>
Bog (=Muhlenberg) turtle	<i>Glyptemys (=Clemmys) muhlenbergii</i>
Chinese softshell *	<i>Pelodiscus sinensis *</i>
Coastal Plain cooter	<i>Pseudemys concinna floridana</i>
Cumberland slider	<i>Trachemys scripta troostii</i>
Eastern box turtle	<i>Terrapene carolina carolina</i>
Eastern chicken turtle	<i>Deirochelys reticularia reticularia</i>
Eastern mud turtle	<i>Kinosternon subrubrum subrubrum</i>
Eastern musk turtle	<i>Sternotherus odoratus</i>
Eastern painted turtle	<i>Chrysemys picta picta</i>
Eastern river cooter	<i>Pseudemys concinna concinna</i>
Eastern spiny softshell turtle	<i>Apalone spinifera spinifera</i>
Green sea turtle	<i>Chelonia mydas</i>
Gulf Coast spiny softshell *	<i>Apalone spinifera aspera *</i>
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>
Leatherback sea turtle	<i>Dermochelys coriacea</i>
Loggerhead sea turtle	<i>Caretta caretta</i>

Mississippi map turtle *	<i>Graptemys pseudogeographica kohnii</i> *
Northern map turtle	<i>Graptemys geographica</i>
Northern diamond-backed terrapin	<i>Malaclemys terrapin terrapin</i>
Northern red-bellied cooter	<i>Pseudemys rubriventris</i>
Red-eared slider *	<i>Trachemys scripta elegans</i> *
Snapping turtle	<i>Chelydra serpentina</i>
Spotted turtle	<i>Clemmys guttata</i>
Striped mud turtle	<i>Kinosternon baurii</i>
Stripe-necked musk turtle	<i>Sternotherus minor peltifer</i>
Wood turtle	<i>Glyptemys insculpta</i>
Yellow-bellied slider	<i>Trachemys scripta scripta</i>
<b><u>BIRDS:</u></b>	
Acadian flycatcher	<i>Empidonax virescens</i>
Alder flycatcher	<i>Empidonax alnorum</i>
American avocet	<i>Recurvirostra americana</i>
American bittern	<i>Botaurus lentiginosus</i>
American black duck	<i>Anas rubripes</i>
American coot	<i>Fulica americana</i>
American crow	<i>Corvus brachyrhynchos</i>
American golden-plover	<i>Pluvialis dominica</i>
American goldfinch	<i>Carduelis tristis</i>
American kestrel	<i>Falco sparverius</i>
American oystercatcher	<i>Haematopus palliatus</i>
American pipit	<i>Anthus rubescens</i>
American redstart	<i>Setophaga ruticilla</i>
American robin	<i>Turdus migratorius</i>
American tree sparrow	<i>Spizella arborea</i>
American white pelican	<i>Pelecanus erythrorhynchos</i>
American wigeon	<i>Anas americana</i>
American woodcock	<i>Scolopax minor</i>
Anhinga	<i>Anhinga anhinga</i>
Arctic peregrine falcon	<i>Falco peregrinus tundrius</i>
Arctic tern	<i>Sterna paradisaea</i>
Audubon's shearwater	<i>Puffinus lherminieri</i>
Bachman's sparrow	<i>Aimophila aestivalis</i>
Baird's sandpiper	<i>Calidris bairdii</i>
Bald eagle	<i>Haliaeetus leucocephalus</i>
Baltimore oriole	<i>Icterus galbula</i>
Bank swallow	<i>Riparia riparia</i>

Barn owl	<i>Tyto alba</i>
Barn swallow	<i>Hirundo rustica</i>
Barred owl	<i>Strix varia</i>
Bay-breasted warbler	<i>Dendroica castanea</i>
Belted kingfisher	<i>Ceryle alcyon</i>
Bewick's wren	<i>Thryomanes bewickii</i>
Bicknell's thrush	<i>Catharus bicknelli</i>
Black-and-white warbler	<i>Mniotilta varia</i>
Black-bellied plover	<i>Pluvialis squatarola</i>
Black-billed cuckoo	<i>Coccyzus erythrophthalmus</i>
Black-capped chickadee	<i>Poecile atricapillus</i>
Black-crowned night-heron	<i>Nycticorax nycticorax</i>
Black-headed gull	<i>Larus ridibundus</i>
Black-legged kittiwake	<i>Rissa tridactyla</i>
Black-necked stilt	<i>Himantopus mexicanus</i>
Black rail	<i>Laterallus jamaicensis</i>
Black scoter	<i>Melanitta nigra</i>
Black skimmer	<i>Rynchops niger</i>
Black tern	<i>Chlidonias niger</i>
Black-throated blue warbler	<i>Dendroica caerulescens</i>
Black-throated green warbler	<i>Dendroica virens</i>
Black vulture	<i>Coragyps atratus</i>
Blackburnian warbler	<i>Dendroica fusca</i>
Blackpoll warbler	<i>Dendroica striata</i>
Blue-gray gnatcatcher	<i>Poliptila caerulea</i>
Blue grosbeak	<i>Guiraca caerulea</i>
Blue-headed vireo	<i>Vireo solitarius</i>
Blue jay	<i>Cyanocitta cristata</i>
Blue-winged teal	<i>Anas discors orphna</i>
Blue-winged warbler	<i>Vermivora pinus</i>
Boat-tailed grackle	<i>Quiscalus major</i>
Bobolink	<i>Dolichonyx oryzivorus</i>
Bonaparte's gull	<i>Larus philadelphia</i>
Brant	<i>Branta bernicla</i>
Brewer's blackbird	<i>Euphagus cyanocephalus</i>
Bridled tern	<i>Sterna anaethetus</i>
Broad-winged hawk	<i>Buteo platypterus</i>
Brown creeper	<i>Certhia americana</i>
Brown-headed cowbird	<i>Molothrus ater</i>
Brown-headed nuthatch	<i>Sitta pusilla</i>
Brown pelican	<i>Pelecanus occidentalis</i>

Brown thrasher	<i>Toxostoma rufum</i>
Buff-breasted sandpiper	<i>Tryngites subruficollis</i>
Bufflehead	<i>Bucephala albeola</i>
Cackling goose	<i>Branta hutchinsii</i>
Canada goose	<i>Branta canadensis</i>
Canada warbler	<i>Wilsonia canadensis</i>
Canvasback	<i>Aythya valisineria</i>
Cape May warbler	<i>Dendroica tigrina</i>
Carolina chickadee	<i>Poecile carolinensis</i>
Carolina wren	<i>Thryothorus ludovicianus</i>
Caspian tern	<i>Sterna caspia</i>
Cattle egret	<i>Bubulcus ibis</i>
Cave swallow	<i>Petrochelidon fulva</i>
Cedar waxwing	<i>Bombycilla cedrorum</i>
Cerulean warbler	<i>Dendroica cerulea</i>
Chestnut-sided warbler	<i>Dendroica pensylvanica</i>
Chimney swift	<i>Chaetura pelagica</i>
Chipping sparrow	<i>Spizella passerina</i>
Chuck-will's-widow	<i>Caprimulgus carolinensis</i>
Clapper rail	<i>Rallus longirostris</i>
Clay-colored sparrow	<i>Spizella pallida</i>
Cliff swallow	<i>Petrochelidon pyrrhonota</i>
Coastal Plain swamp sparrow	<i>Melospiza georgiana nigrescens</i>
Common eider	<i>Somateria mollissima</i>
Common goldeneye	<i>Bucephala clangula</i>
Common grackle	<i>Quiscalus quiscula</i>
Common loon	<i>Gavia immer</i>
Common merganser	<i>Mergus merganser</i>
Common moorhen	<i>Gallinula chloropus</i>
Common nighthawk	<i>Chordeiles minor</i>
Common raven	<i>Corvus corax</i>
Common redpoll	<i>Carduelis flammea</i>
Common snipe	<i>Gallinago gallinago</i>
Common tern	<i>Sterna hirundo</i>
Common yellowthroat	<i>Geothlypis trichas</i>
Connecticut warbler	<i>Oporornis agilis</i>
Cooper's hawk	<i>Accipiter cooperii</i>
Cory's shearwater	<i>Calonectris diomedea</i>
Curlew sandpiper	<i>Calidris ferruginea</i>
Dark-eyed junco	<i>Junco hyemalis</i>
Dickcissel	<i>Spiza americana</i>



Double-crested cormorant	<i>Phalacrocorax auritus</i>
Downy woodpecker	<i>Picoides pubescens</i>
Dunlin	<i>Calidris alpina</i>
Eared grebe	<i>Podiceps nigricollis</i>
Eastern bluebird	<i>Sialia sialis</i>
Eastern kingbird	<i>Tyrannus tyrannus</i>
Eastern meadowlark	<i>Sturnella magna</i>
Eastern phoebe	<i>Sayornis phoebe</i>
Eastern screech-owl	<i>Otus asio</i>
Eastern towhee	<i>Pipilo erythrophthalmus</i>
Eastern wood pewee	<i>Contopus virens</i>
Eurasian collared-dove *	<i>Streptopelia decaocto</i> *
Eurasian wigeon	<i>Anas penelope</i>
European starling *	<i>Sturnus vulgaris</i> *
Evening grosbeak	<i>Coccothausates vespertinus</i>
Field sparrow	<i>Spizella pusilla</i>
Fish crow	<i>Corvus ossifragus</i>
Forster's tern	<i>Sterna forsteri</i>
Fox sparrow	<i>Passerella iliaca</i>
Fulvous whistling duck	<i>Dendrocygna bicolor</i>
Gadwall	<i>Anas strepera</i>
Glaucous gull	<i>Larus hyperboreus</i>
Glossy ibis	<i>Plegadis falcinellus</i>
Golden-crowned kinglet	<i>Regulus satrapa</i>
Golden eagle	<i>Aquila chrysaetos</i>
Golden-winged warbler	<i>Vermivora chrysoptera</i>
Grasshopper sparrow	<i>Ammodramus savannarum</i>
Gray catbird	<i>Dumetella carolinensis</i>
Gray-cheeked thrush	<i>Catharus minimus</i>
Great black-backed gull	<i>Larus marinus</i>
Great blue heron	<i>Ardea herodias</i>
Great cormorant	<i>Phalacrocorax carbo</i>
Great crested flycatcher	<i>Myiarchus crinitus</i>
Great egret	<i>Ardea alba</i>
Great horned owl	<i>Bubo virginianus</i>
Great skua	<i>Catharacta skua</i>
Greater scaup	<i>Aythya marila</i>
Greater shearwater	<i>Puffinus gravis</i>
Greater white-fronted goose	<i>Anser albifrons</i>
Greater yellowlegs	<i>Tringa melanoleuca</i>
Green heron	<i>Butorides virescens</i>

Green-winged teal	<i>Anas crecca</i>
Gull-billed tern	<i>Sterna nilotica</i>
Hairy woodpecker	<i>Picoides villosus</i>
Harlequin duck	<i>Histrionicus histrionicus</i>
Henslow's sparrow	<i>Ammodramus henslowii</i>
Hermit thrush	<i>Catharus guttatus</i>
Herring gull	<i>Larus argentatus</i>
Hooded merganser	<i>Lophodytes cucullatus</i>
Hooded warbler	<i>Wilsonia citrina</i>
Horned grebe	<i>Podiceps auritus</i>
Horned lark	<i>Eremophila alpestris</i>
House finch	<i>Carpodacus mexicanus</i>
House sparrow *	<i>Passer domesticus</i> *
House wren	<i>Troglodytes aedon</i>
Hudsonian godwit	<i>Limosa haemastica</i>
Iceland gull	<i>Larus glaucoides</i>
Indigo bunting	<i>Passerina cyanea</i>
Kentucky warbler	<i>Oporornis formosus</i>
Killdeer	<i>Charadrius vociferus</i>
King eider	<i>Somateria spectabilis</i>
King rail	<i>Rallus elegans</i>
Kirtland's warbler	<i>Dendroica kirtlandii</i>
Lark sparrow	<i>Chondestes grammacus</i>
Laughing gull	<i>Larus atricilla</i>
Least bittern	<i>Ixobrychus exilis</i>
Least flycatcher	<i>Empidonax minimus</i>
Least sandpiper	<i>Calidris minutilla</i>
Least tern	<i>Sterna antillarum</i>
LeConte's sparrow	<i>Ammodramus leconteii</i>
Lesser black-backed gull	<i>Larus fuscus</i>
Lesser scaup	<i>Aythya affinis</i>
Lesser yellowlegs	<i>Tringa flavipes</i>
Lincoln's sparrow	<i>Melospiza lincolnii</i>
Little blue heron	<i>Egretta caerulea</i>
Little gull	<i>Larus minutus</i>
Loggerhead shrike	<i>Lanius ludovicianus</i>
Long-billed curlew	<i>Numenius americanus</i>
Long-billed dowitcher	<i>Limnodromus scolopaceus</i>
Long-eared owl	<i>Asio otus</i>
Long-tailed duck	<i>Clangula hyemalis</i>
Louisiana waterthrush	<i>Seiurus motacilla</i>

Magnolia warbler	<i>Dendroica magnolia</i>
Mallard	<i>Anas platyrhynchos</i>
Manx shearwater	<i>Puffinus puffinus</i>
Marbled godwit	<i>Limosa fedoa</i>
Marsh wren	<i>Cistothorus palustris</i>
Merlin	<i>Falco columbarius</i>
Migrant loggerhead shrike	<i>Lanius ludovicianus migrans</i>
Mississippi kite	<i>Ictinia mississippiensis</i>
Monk parakeet *	<i>Myiopsitta monachus</i> *
Mourning dove	<i>Zenaida macroura</i>
Mourning warbler	<i>Oporornis philadelphia</i>
Mute swan *	<i>Cygnus olor</i> *
Nashville warbler	<i>Vermivora ruficapilla</i>
Nelson's sharp-tailed sparrow	<i>Ammodramus nelsoni</i>
Northern bobwhite	<i>Colinus virginianus</i>
Northern cardinal	<i>Cardinalis cardinalis</i>
Northern flicker	<i>Colaptes auratus</i>
Northern fulmar	<i>Fulmarus glacialis</i>
Northern gannet	<i>Morus bassanus</i>
Northern goshawk	<i>Accipiter gentilis</i>
Northern harrier	<i>Circus cyaneus</i>
Northern mockingbird	<i>Mimus polyglottos</i>
Northern parula	<i>Parula americana</i>
Northern pintail	<i>Anas acuta acuta</i>
Northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>
Northern saw-whet owl	<i>Aegolius acadicus</i>
Northern shoveler	<i>Anas clypeata</i>
Northern waterthrush	<i>Seiurus noveboracensis</i>
Olive-sided flycatcher	<i>Contopus cooperi</i>
Orange-crowned warbler	<i>Vermivora celata</i>
Orchard oriole	<i>Icterus spurius</i>
Osprey	<i>Pandion haliaetus</i>
Ovenbird	<i>Seiurus aurocapillus</i>
Painted bunting	<i>Passerina ciris</i>
Palm warbler	<i>Dendroica palmarum</i>
Parasitic jaeger	<i>Stercorarius parasiticus</i>
Pectoral sandpiper	<i>Calidris melanotos</i>
Peregrine falcon	<i>Falco peregrinus</i>
Pied-billed grebe	<i>Podilymbus podiceps</i>
Pileated woodpecker	<i>Dryocopus pileatus</i>
Pine siskin	<i>Carduelis pinus</i>

Pine warbler	<i>Dendroica pinus</i>
Piping plover	<i>Charadrius melodus</i>
Pomarine jaeger	<i>Stercorarius pomarinus</i>
Prairie warbler	<i>Dendroica discolor</i>
Prothonotary warbler	<i>Protonotaria citrea</i>
Purple finch	<i>Carpodacus purpureus</i>
Purple martin	<i>Progne subis</i>
Purple sandpiper	<i>Calidris maritima</i>
Razorbill	<i>Alca torda</i>
Red-bellied woodpecker	<i>Melanerpes carolinus</i>
Red-breasted merganser	<i>Mergus serrator</i>
Red-breasted nuthatch	<i>Sitta canadensis</i>
Red-cockaded woodpecker	<i>Picoides borealis</i>
Red crossbill	<i>Loxia curvirostra</i>
Red-eyed vireo	<i>Vireo olivaceus</i>
Red-headed woodpecker	<i>Melanerpes erythrocephalus</i>
Red knot	<i>Calidris canutus</i>
Red-necked grebe	<i>Podiceps grisegena</i>
Red-necked phalarope	<i>Phalaropus lobatus</i>
Red phalarope	<i>Phalaropus fulicaria</i>
Red-shouldered hawk	<i>Buteo lineatus</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Red-throated loon	<i>Gavia stellata</i>
Red-winged blackbird	<i>Agelaius phoeniceus</i>
Redhead	<i>Aythya americana</i>
Ring-billed gull	<i>Larus delawarensis</i>
Ring-necked duck	<i>Aythya collaris</i>
Ring-necked pheasant *	<i>Phasianus colchicus</i> *
Rock dove *	<i>Columba livia</i> *
Rose-breasted grosbeak	<i>Pheucticus ludovicianus</i>
Roseate tern	<i>Sterna dougallii dougallii</i>
Rough-legged hawk	<i>Buteo lagopus</i>
Royal tern	<i>Sterna maxima</i>
Ruby-crowned kinglet	<i>Regulus calendula</i>
Ruby-throated hummingbird	<i>Archilochus colubris</i>
Ruddy duck	<i>Oxyura jamaicensis</i>
Ruddy turnstone	<i>Arenaria interpres</i>
Ruff	<i>Philomachus pugnax</i>
Ruffed grouse	<i>Bonasa umbellus</i>
Rufous hummingbird	<i>Selasphorus rufus</i>
Rusty blackbird	<i>Euphagus carolinus</i>

Saltmarsh sharp-tailed sparrow	<i>Ammodramus caudacutus</i>
Sanderling	<i>Calidris alba</i>
Sandhill crane	<i>Grus canadensis</i>
Sandwich tern	<i>Sterna sandvicensis</i>
Savannah sparrow	<i>Passerculus sandwichensis</i>
Scarlet tanager	<i>Piranga olivacea</i>
Scissor-tailed flycatcher	<i>Tyrannus forficatus</i>
Seaside sparrow	<i>Ammodramus maritimus</i>
Sedge wren	<i>Cistothorus platensis</i>
Semipalmated plover	<i>Charadrius semipalmatus</i>
Semipalmated sandpiper	<i>Calidris pusilla</i>
Sharp-shinned hawk	<i>Accipiter striatus</i>
Short-billed dowitcher	<i>Limnodromus griseus</i>
Short-eared owl	<i>Asio flammeus</i>
Snow bunting	<i>Plectrophenax nivalis</i>
Snow goose	<i>Chen caerulescens</i>
Snowy egret	<i>Egretta thula</i>
Snowy owl	<i>Nyctea scandiaca</i>
Solitary sandpiper	<i>Tringa solitaria</i>
Song sparrow	<i>Melospiza melodia</i>
Sooty shearwater	<i>Puffinus griseus</i>
Sooty tern	<i>Sterna fuscata</i>
Sora	<i>Porzana carolina</i>
Southern swamp sparrow	<i>Melospiza georgiana georgiana</i>
Spotted sandpiper	<i>Actitis macularia</i>
Stilt sandpiper	<i>Calidris himantopus</i>
Summer tanager	<i>Piranga rubra</i>
Surf scoter	<i>Melanitta perspicillata</i>
Swainson's thrush	<i>Catharus ustulatus</i>
Swainson's warbler	<i>Limnothlypis swainsonii</i>
Swallow-tailed kite	<i>Elanoides forficatus</i>
Swamp sparrow	<i>Melospiza georgiana</i>
Tennessee warbler	<i>Vermivora peregrina</i>
Thick-billed murre	<i>Uria lomvia</i>
Tree swallow	<i>Tachycineta bicolor</i>
Tricolored heron	<i>Egretta tricolor</i>
Tufted titmouse	<i>Baeolophus bicolor</i>
Tundra swan	<i>Cygnus columbianus</i>
Turkey vulture	<i>Cathartes aura</i>
Upland sandpiper	<i>Bartramia longicauda</i>
Veery	<i>Catharus fuscescens</i>

Vesper sparrow	<i>Pooecetes gramineus</i>
Virginia rail	<i>Rallus limicola</i>
Warbling vireo	<i>Vireo gilvus</i>
Western grebe	<i>Aechmophorus occidentalis</i>
Western kingbird	<i>Tyrannus verticalis</i>
Western sandpiper	<i>Calidris mauri</i>
Western tanager	<i>Piranga ludoviciana</i>
Whimbrel	<i>Numenius phaeopus</i>
Whip-poor-will	<i>Caprimulgus vociferus</i>
White-breasted nuthatch	<i>Sitta carolinensis</i>
White-crowned sparrow	<i>Zonotrichia leucophrys</i>
White-eyed vireo	<i>Vireo griseus</i>
White ibis	<i>Eudocimus albus</i>
White-rumped sandpiper	<i>Calidris fuscicollis</i>
White-throated sparrow	<i>Zonotrichia albicollis</i>
White-winged scoter	<i>Melanitta fusca</i>
Wild turkey	<i>Meleagris gallopavo</i>
Willet	<i>Catoptrophorus semipalmatus</i>
Willow flycatcher	<i>Empidonax traillii</i>
Wilson's phalarope	<i>Phalaropus tricolor</i>
Wilson's plover	<i>Charadrius wilsonia</i>
Wilson's snipe	<i>Gallinago delicata</i>
Wilson's storm-petrel	<i>Oceanites oceanicus</i>
Wilson's warbler	<i>Wilsonia pusilla</i>
Winter wren	<i>Troglodytes troglodytes</i>
Wood duck	<i>Aix sponsa</i>
Wood stork	<i>Mycteria americana</i>
Wood thrush	<i>Hylocichla mustelina</i>
Worm-eating warbler	<i>Helmitheros vermivorus</i>
Yellow-bellied flycatcher	<i>Empidonax flaviventris</i>
Yellow-bellied sapsucker	<i>Sphyrapicus varius</i>
Yellow-billed cuckoo	<i>Coccyzus americanus</i>
Yellow-breasted chat	<i>Icteria virens</i>
Yellow-crowned night-heron	<i>Nyctanassa violacea</i>
Yellow-headed blackbird	<i>Xanthocephalus xanthocephalus</i>
Yellow rail	<i>Coturnicops noveboracensis</i>
Yellow-rumped warbler	<i>Dendroica coronata</i>
Yellow-throated vireo	<i>Vireo flavifrons</i>
Yellow-throated warbler	<i>Dendroica dominica</i>
Yellow warbler	<i>Dendroica petechia</i>

<b>MAMMALS:</b>	
Allegheny woodrat	<i>Neotoma magister</i>
American beaver	<i>Castor canadensis</i>
American water shrew	<i>Sorex palustris</i>
Appalachian cottontail	<i>Sylvilagus obscurus</i>
Ashen-masked shrew	<i>Sorex cinereus cinereus</i>
Big brown bat	<i>Eptesicus fuscus fuscus</i>
Black bear	<i>Ursus americanus americanus</i>
Black rat *	<i>Rattus rattus *</i>
Black-tailed jack rabbit *	<i>Lepus californicus melanotis *</i>
Bobcat	<i>Lynx rufus rufus</i>
Carolina beaver	<i>Castor canadensis carolinensis</i>
Carolina Gapper's red-backed vole	<i>Clethrionomys gapperi carolinensis</i>
Carolina northern flying squirrel	<i>Glaucomys sabrinus coloratus</i>
Coastal Gapper's red-backed vole	<i>Clethrionomys gapperi maurus</i>
Common eastern chipmunk	<i>Tamias striatus striatus</i>
Common Gapper's red-backed vole	<i>Clethrionomys gapperi gapperi</i>
Common golden mouse	<i>Ochrotomys nuttalli nuttalli</i>
Common mink	<i>Mustela vison mink</i>
Common muskrat	<i>Ondatra zibethicus zibethicus</i>
Common pine vole	<i>Microtus pinetorum pinetorum</i>
Common white-footed mouse	<i>Peromyscus leucopus leucopus</i>
Cotton mouse	<i>Peromyscus gossypinus gossypinus</i>
Coyote	<i>Canis latrans</i>
Dark meadow vole	<i>Microtus pennsylvanicus nigrans</i>
Deer mouse	<i>Peromyscus maniculatus nubiterrae</i>
Delmarva Peninsula fox squirrel	<i>Sciurus niger cinereus</i>
Dismal Swamp short-tailed shrew	<i>Blarina brevicauda telmalestes</i>
Dismal Swamp southeastern shrew	<i>Sorex longirostris fisheri</i>
Eastern cottontail	<i>Sylvilagus floridanus mallurus</i>
Eastern fox squirrel	<i>Sciurus niger vulpinus</i>
Eastern gray fox	<i>Urocyon cinereoargenteus cinereoargenteus</i>
Eastern harvest mouse	<i>Reithrodontomys humulis virginianus</i>
Eastern harvest mouse	<i>Reithrodontomys humulis humulis</i>
Eastern mole	<i>Scalopus aquaticus aquaticus</i>
Eastern red bat	<i>Lasiurus borealis borealis</i>
Eastern spotted skunk	<i>Spilogale putorius putorius</i>
Elk	<i>Cervus canadensis</i>
Evening bat	<i>Nycticeius humeralis humeralis</i>
Fisher	<i>Martes pennanti</i>

Fisher's eastern chipmunk	<i>Tamias striatus fisheri</i>
Gray bat	<i>Myotis grisescens</i>
Gray squirrel	<i>Sciurus carolinensis carolinensis</i>
Hairy-tailed mole	<i>Parascalops breweri</i>
Hispid cotton rat	<i>Sigmodon hispidus virginianus</i>
Hoary bat	<i>Lasiurus cinereus cinereus</i>
House mouse *	<i>Mus musculus *</i>
Howell's eastern mole	<i>Scalopus aquaticus howelli</i>
Indiana bat	<i>Myotis sodalis</i>
Kirtland's short-tailed shrew	<i>Blarina brevicauda kirtlandi</i>
Large-toothed muskrat	<i>Ondatra zibethicus macrodon</i>
Least shrew	<i>Cryptotis parva parva</i>
Least weasel	<i>Mustela nivalis allegheniensis</i>
Lewis' golden mouse	<i>Ochrotomys nuttalli aureolus</i>
Little brown bat	<i>Myotis lucifugus lucifugus</i>
Long-tailed shrew	<i>Sorex dispar dispar</i>
Long-tailed weasel	<i>Mustela frenata noveboracensis</i>
Marsh rabbit	<i>Sylvilagus palustris palustris</i>
Marsh rice rat	<i>Oryzomys palustris palustris</i>
Masked shrew	<i>Sorex cinereus fontinalis</i>
Meadow jumping mouse	<i>Zapus hudsonius americanus</i>
Meadow vole	<i>Microtus pennsylvanicus pennsylvanicus</i>
Mearn's eastern cottontail	<i>Sylvilagus floridanus mearnsii</i>
Northern gray squirrel	<i>Sciurus carolinensis pennsylvanicus</i>
Northern long-eared myotis	<i>Myotis septentrionalis septentrionalis</i>
Northern river otter	<i>Lontra canadensis lataxina</i>
Northern short-tailed shrew	<i>Blarina brevicauda churchi</i>
Northern white-footed mouse	<i>Peromyscus leucopus noveboracensis</i>
Northern yellow bat	<i>Lasiurus intermedius floridanus</i>
Norway rat *	<i>Rattus norvegicus *</i>
Nutria *	<i>Myocastor coypus *</i>
Pine vole	<i>Microtus pinetorum carbonarius</i>
Pine vole	<i>Microtus pinetorum scalapsoides</i>
Prairie deer mouse	<i>Peromyscus maniculatus bairdii</i>
Pungo white-footed mouse	<i>Peromyscus leucopus easti</i>
Pygmy shrew	<i>Sorex hoyi winnemana</i>
Raccoon	<i>Procyon lotor maritimus</i>
Raccoon	<i>Procyon lotor lotor</i>
Rafinesque's big-eared bat	<i>Corynorhinus rafinesquii</i>
Rafinesque's eastern big-eared bat	<i>Corynorhinus rafinesquii macrotis</i>
Red fox	<i>Vulpes vulpes fulva</i>





Carolina lance	<i>Elliptio angustata</i>
Carolina slabshell	<i>Elliptio congaraea</i>
Carolina spike	<i>Elliptio raveneli</i>
Cracking pearlymussel	<i>Hemistena lata</i>
Creeper	<i>Strophitus undulatus</i>
Cumberland (pearlymussel) bean	<i>Villosa trabalis</i>
Cumberlandian combshell	<i>Epioblasma brevidens</i>
Cumberland moccasinshell	<i>Medionidus conradicus</i>
Cumberland monkeyface	<i>Quadrula intermedia</i>
Deertoe	<i>Truncilla truncata</i>
Dromedary pearlymussel	<i>Dromus dromas</i>
Dwarf wedgemussel	<i>Alasmidonta heterodon</i>
Eastern elliptio	<i>Elliptio complanata</i>
Eastern floater	<i>Pyganodon cataracta</i>
Eastern lampmussel	<i>Lampsilis radiata radiata</i>
Eastern pondmussel	<i>Ligumia nasuta</i>
Elephantear	<i>Elliptio crassidens</i>
Elktoe	<i>Alasmidonta marginata</i>
Fanshell	<i>Cyprogenia stegaria</i>
Finerayed pigtoe	<i>Fusconaia cuneolus</i>
Florida pondhorn	<i>Unio merus carolinianus</i>
Fluted kidneyshell	<i>Ptychobranthus subtentum</i>
Flutedshell	<i>Lasmigona costata</i>
Fragile papershell	<i>Leptodea fragilis</i>
Giant floater	<i>Pyganodon grandis</i>
Green blossom (pearlymussel)	<i>Epioblasma torulosa gubernaculum</i>
Green floater	<i>Lasmigona subviridis</i>
James spinymussel	<i>Pleurobema collina</i>
Kidneyshell	<i>Ptychobranthus fasciolaris</i>
Littlewing pearlymussel	<i>Pegias fabula</i>
Longsolid	<i>Fusconaia subrotunda</i>
Mountain creekshell	<i>Villosa vanuxemensis</i>
Mucket	<i>Actinonaias ligamentina</i>
Northern lance	<i>Elliptio fisheriana</i>
Notched rainbow	<i>Villosa constricta</i>
Ohio pigtoe	<i>Pleurobema cordatum</i>
Oyster mussel	<i>Epioblasma capsaeformis</i>
Paper pondshell	<i>Utterbackia imbecillis</i>
Pheasantshell	<i>Actinonaias pectorosa</i>
Pimpleback	<i>Quadrula pustulosa</i>
Pink heelsplitter	<i>Potamilus alatus</i>



Big-eared radix	<i>Radix auricularia</i>
Blue Ridge springsnail	<i>Fontigens orolibas</i>
Boreal marstonia	<i>Pyrgulopsis lustrica</i>
Bottle hornsnailed	<i>Pleurocera gradata</i>
Brown walker	<i>Pomatiopsis cincinnatiensis</i>
Brown-spotted mantleslug	<i>Philomycus venustus</i>
Budded threetooth	<i>Triodopsis tennesseensis</i>
Buff supercoil	<i>Paravitrea grimmi</i>
Buffalo pebblesnail	<i>Gillia altilis</i>
Bugle sprite	<i>Micromenetus dilatatus</i>
Chinese mysterysnail	<i>Bellamya chinensis</i>
Club elimia	<i>Elimia clavaeformis</i>
Coal elimia	<i>Elimia aterina</i>
Creeping ancyloid	<i>Ferrissia rivularis</i>
Crested mudalia	<i>Leptoxis carinata</i>
Cymbal ancyloid	<i>Laevapex diaphanus</i>
Disc sprite	<i>Micromenetus brogniartianus</i>
Dusky ancyloid	<i>Laevapex fuscus</i>
Dusky fossaria	<i>Fossaria dalli</i>
Ebony elimia	<i>Elimia ebum</i>
European or pewter physa	<i>Physa acuta</i>
Excentric ancyloid	<i>Hebetancyclus excentricus</i>
Fine-ridged elimia	<i>Elimia semicarinata</i>
Flexed gyro	<i>Gyraulus deflectus</i>
Fragile ancyloid	<i>Ferrissia fragilis</i>
Glossy physa	<i>Physa pomilia</i>
Golden fossaria	<i>Fossaria obrussa</i>
Gravel elmia	<i>Elimia catenaria catenaria</i>
Henscomb hydrobe	<i>Littoridinops tenuipes</i>
Japanese mysterysnail	<i>Bellamya japonica</i>
Lance aplexa	<i>Aplexa elongata</i>
Lapped elimia	<i>Elimia dislocata</i>
Marsh fossaria	<i>Fossaria humilis</i>
Marsh rams-horn	<i>Planorbella trivolvis</i>
Mimic lymnaea	<i>Pseudosuccinea columella</i>
Mud amnicola	<i>Amnicola limosus</i>
Mud bithynia	<i>Bithynia tentaculata</i>
Oblong ancyloid	<i>Ferrissia parallelus</i>
Onyx rocksnail	<i>Leptoxis praerosa</i>
Pagoda hornsnailed	<i>Pleurocera uncialis</i>
Panhandle pebblesnail	<i>Somatogyryus virginicus</i>

Physa, unnamed snail	<i>Physa carolinae</i>
Piedmont elimia	<i>Elimia virginica</i>
Piedmont pondsnailed	<i>Stagnicola neopalustris</i>
Pointed campeloma	<i>Campeloma decisum</i>
Pygmy fossaria	<i>Fossaria parva</i>
Ridged lioplax	<i>Lioplax subcarinata</i>
Seep mudalia	<i>Leptoxis dilatata</i>
Shale pebblesnail	<i>Somatogyrus pennsylvanicus</i>
Sharp sprite	<i>Promenetus exacuous</i>
Silty hornsnailed	<i>Pleurocera canaliculata</i>
Skyline Caverns snail	<i>Holsingeria sp. 1</i>
Slender walker	<i>Pomatiopsis lapidaria</i>
Smooth elimia	<i>Elimia simplex</i>
Smooth mudalia	<i>Leptoxis virgata</i>
Spider elimia	<i>Elimia arachnoidea</i>
Spiny riversnailed	<i>Io fluvialis</i>
Springsnailed (no common name)	<i>Fontigens morrisoni</i>
Sprite elimia	<i>Elimia proxima</i>
Squat duskysnailed	<i>Lyogyrus granum</i>
Tadpole physa	<i>Physa gyrina</i>
Thankless ghostsnailed	<i>Holsingeria unthinksensis</i>
Thicklip rams-horn	<i>Planorbula armigera</i>
Threeridge valvata	<i>Valvata tricarinata</i>
Two-ridge rams-horn	<i>Helisoma anceps</i>
Two-ridge valvata	<i>Valvata bicarinata</i>
Watercress snail	<i>Fontigens nickliniana</i>
<u>Land Snails (partial):</u>	
Alabama threetooth	<i>Triodopsis alabamensis</i>
Amber glass	<i>Nesovitrea electrina</i>
Angular disc	<i>Discus catskillensis</i>
Appalachia bellytooth	<i>Gastrodonta fonticula</i>
Appalachian pillar	<i>Cochlicopa morseana</i>
Appalachian thorn	<i>Carychium clappi</i>
Appalachian tigersnailed	<i>Anguispira mordax</i>
Armed snaggletooth	<i>Gastrocopta armifera</i>
Atlantic threetooth	<i>Triodopsis juxtidentis</i>
Baffled threetooth	<i>Triodopsis fraudulenta</i>
Balsam globe	<i>Mesodon andrewsae</i>
Bark snaggletooth	<i>Gastrocopta corticaria</i>

Barred supercoil	<i>Paravitrea seradens</i>
Bidentate dome	<i>Ventridens coelaxis</i>
Big-tooth whitelip	<i>Neohelix dentifera</i>
Black mantleslug	<i>Pallifera hemphilli</i>
Black Mountain disc	<i>Discus nigrimontanus</i>
Black striate	<i>Striatura ferrea</i>
Blade vertigo	<i>Vertigo milium</i>
Blotchy mantleslug	<i>Megapallifera wetherbyi</i>
Blue glass	<i>Nesovitrea binneyana</i>
Bluegrass snaggletooth	<i>Gastrocopta clappi</i>
Bluff coil	<i>Helicodiscus enneodon</i>
Bottleneck snaggletooth	<i>Gastrocopta contracta</i>
Bright glyph	<i>Glyphyalinia wheatleyi</i>
Brilliant glyph	<i>Glyphyalinia praecox</i>
Bristled slitmouth	<i>Stenotrema barbatum</i>
Bronze pinecone	<i>Strobilops aeneus</i>
Brown bellytooth	<i>Gastrodonta interna</i>
Brown gardensnail	<i>Helix aspersa</i>
Brown globelet	<i>Inflectarius kalmianus</i>
Brown hive	<i>Euconulus fulvus</i>
Brown spot	<i>Punctum blandianum</i>
Brown supercoil	<i>Paravitrea septadens</i>
Buttressed threetooth	<i>Triodopsis rugosa</i>
Capital vertigo	<i>Vertigo oscariana</i>
Carinate slitmouth	<i>Stenotrema spinosum</i>
Carolina mantleslug	<i>Philomycus carolinianus</i>
Carter threetooth	<i>Triodopsis anteridon</i>
Carved glyph	<i>Glyphyalinia indentata</i>
Cellar glass-snail	<i>Oxychilus cellarius</i>
Changeable mantleslug	<i>Megapallifera mutabilis</i>
Cherrystone drop	<i>Hendersonia occulta</i>
Chesapeake ambersnail	<i>Oxyloma subeffusum</i>
Cinnamon covert	<i>Fumonelix wheatleyi</i>
Coastal lipetooth	<i>Daedalochila postelliana</i>
Coastal-plain ambersnail	<i>Oxyloma effusum subeffusa</i>
Coastal-Plain tigersnail	<i>Anguispira fergusonii</i>
Comb snaggletooth	<i>Gastrocopta pentodon</i>
Comb supercoil	<i>Paravitrea dentilla</i>
Common button	<i>Mesomphix vulgatus</i>
Compound coil	<i>Helicodiscus parallelus</i>
Copper button	<i>Mesomphix cupreus</i>

Copper dome	<i>Ventridens theloides</i>
Costate vallonina	<i>Vallonia costata</i>
Crested snaggletooth	<i>Gastrocopta cristata</i>
Crested vertigo	<i>Vertigo pygmaea</i>
Cricket coil	<i>Helicodiscus hadenoecus</i>
Crinkled ambersnail	<i>Succinea campestris</i>
Crossed dome	<i>Ventridens decussatus</i>
Cumberland lipetooth	<i>Millerelix plicata</i>
Cupped vertigo	<i>Vertigo clappi</i>
Dark-bodied glass-snail	<i>Oxychilus draparnaldi</i>
Decollate snail	<i>Rumina decollata</i>
Deep-tooth shagreen	<i>Inflectarius rugeli</i>
Delicate vertigo	<i>Vertigo bollesiana</i>
Dentate supercoil	<i>Paravitrea multidentata</i>
Depressed glyph	<i>Glyphyalinia virginica</i>
Detritus ambersnail	<i>Catinella oklahomarum</i>
Dimple supercoil	<i>Paravitrea capsella</i>
Dished threetooth	<i>Triodopsis vulgata</i>
Domed disc	<i>Discus patulus</i>
Dusky arion	<i>Arion subfuscus</i>
Dusky button	<i>Mesomphix capnodes</i>
Dusky mantleslug	<i>Philomycus batchi</i>
Dwarf globelet	<i>Inflectarius downieanus</i>
Engraved bladetooth	<i>Patera perigrapta</i>
Fat hive	<i>Euconulus polygyratus</i>
File thorn	<i>Carychium nannodes</i>
Fine-ribbed striate	<i>Striatura milium</i>
Forest disc	<i>Discus whitneyi</i>
Foster mantleslug	<i>Pallifera fosteri</i>
Five-tooth vertigo	<i>Vertigo ventricosa</i>
Flamed tigersnail	<i>Anguispira alternata</i>
Flat bladetooth	<i>Patera appressa</i>
Flat button	<i>Mesomphix subplanus</i>
Flat dome	<i>Ventridens suppressus</i>
Forest disc	<i>Discus whitneyi</i>
Foster mantleslug	<i>Pallifera fosteri</i>
Funnel supercoil	<i>Paravitrea mira</i>
Furrowed glyph	<i>Glyphyalinia luticola</i>
Garden arion	<i>Arion hortensis</i>
Giant gardenslug *	<i>Limax maximus</i> *
Glass spot	<i>Punctum vitreum</i>

Glassy grapeskin	<i>Vitrinizonites latissimus</i>
Globose dome	<i>Ventridens ligera</i>
Glossy covert	<i>Fumonelix christyi</i>
Glossy dome	<i>Ventridens acerra</i>
Glossy pillar	<i>Cochlicopa lubrica</i>
Glossy supercoil	<i>Paravitrea placentula</i>
Golden ambersnail	<i>Succinea wilsonii</i>
Golden dome	<i>Ventridens arcellus</i>
Graceful awlsnail	<i>Allopeas gracile</i>
Gray supercoil	<i>Paravitrea bidens</i>
Gray-foot lancetooth	<i>Haplotrema concavum</i>
Grayfoot mantleslug	<i>Philomycus bisdosus</i>
Green dome	<i>Zonitoides elliotti</i>
Greenhouse slug	<i>Milax gagates</i>
Grovesnail	<i>Cepaea nemoralis</i>
Hairy slitmouth	<i>Stenotrema hirsutum</i>
Hanging Rock threetooth	<i>Triodopsis pendula</i>
High mountain supercoil	<i>Paravitrea andrewsae</i>
Highland slitmouth	<i>Stenotrema altispira</i>
Hill glyph	<i>Glyphyalinia cumberlandiana</i>
Hollow dome	<i>Ventridens lasmodon</i>
Hollow glyph	<i>Glyphyalinia specus</i>
Honey vertigo	<i>Vertigo tridentata</i>
Ice thorn	<i>Carychium exile</i>
Inland slitmouth	<i>Stenotrema stenotrema</i>
Iroquois vallonina	<i>Vallonia excentrica</i>
Lambda snaggletooth	<i>Gastrocopta holzingeri</i>
Lamellate spot	<i>Punctum smithi</i>
Lovely vallonina	<i>Vallonia pulchella</i>
Lowland pillsnail	<i>Euchemotrema leai</i>
Magnolia threetooth	<i>Triodopsis hopetonensis</i>
Marshall ambersnail	<i>Oxyloma decampi</i>
Maryland glyph	<i>Glyphyalinia raderi</i>
Maze pinecone	<i>Strobilops labyrinthicus</i>
Meadow slug	<i>Deroceras laeve</i>
Median striate	<i>Striatura meridionalis</i>
Milk snail	<i>Otala lactea</i>
Mimic threetooth	<i>Triodopsis fallax</i>
Minute gem	<i>Hawaiiia minuscula</i>
Mountain tigersnail	<i>Anguispira jessica</i>
Natural Bridge supercoil	<i>Paravitrea pontis</i>



Northern threetooth	<i>Triodopsis tridentata</i>
Nubbin three-tooth	<i>Triodopsis obsoleta</i>
Obese thorn	<i>Carychium exiguum</i>
Obtuse awlslug	<i>Cecilioides aperta</i>
Oldfield coil	<i>Helicodiscus inermis</i>
Oval ambersnail	<i>Novisuccinea ovalis</i>
Ovate vertigo	<i>Vertigo ovata</i>
Pale glyph	<i>Glyphyalinia lewisiana</i>
Pale mantleslug	<i>Pallifera dorsalis</i>
Palmetto vertigo	<i>Vertigo oralis</i>
Pearl supercoil	<i>Paravitrea calcicola</i>
Perforate dome	<i>Ventridens demissus</i>
Pinhole threetooth	<i>Triodopsis messana</i>
Pittsylvania threetooth	<i>Triodopsis burchi</i>
Plain button	<i>Mesomphix inornatus</i>
Proud globe	<i>Mesodon elevatus</i>
Pygmy slitmouth	<i>Stenotrema pilula</i>
Pyramid dome	<i>Ventridens intertextus</i>
Quick gloss	<i>Zonitoides arboreus</i>
Ribbed striate	<i>Striatura exigua</i>
Ridge-and-valley slitmouth	<i>Stenotrema edwardsi</i>
Rivercliff threetooth	<i>Triodopsis discoidea</i>
Round supercoil	<i>Paravitrea reesei</i>
Rounded dome	<i>Ventridens lawae</i>
Rubble coil	<i>Helicodiscus lirellus</i>
Rust glyph	<i>Glyphyalinia picea</i>
Rustic tigersnail	<i>Anguispira knoxensis</i>
Sculpted glyph	<i>Glyphyalinia rhoadsi</i>
Sculptured dome	<i>Ventridens collisella</i>
Sealed globelet	<i>Mesodon mitchellianus</i>
Severed mantleslug	<i>Pallifera secreta</i>
Shaggy coil	<i>Helicodiscus diadema</i>
Shagreen	<i>Inflectarius inflectus</i>
Sharp awlslug	<i>Opeas pyrgula</i>
Shrew supercoil	<i>Paravitrea blarina</i>
Silk hive	<i>Euconulus trochulus</i>
Slender supercoil	<i>Paravitrea subtilis</i>
Slim snaggletooth	<i>Gastrocopta pellucida</i>
Small spot	<i>Punctum minutissimum</i>
Smallmouth vertigo	<i>Vertigo parvula</i>
Smooth bladetooth	<i>Patera laevior</i>

Smooth button	<i>Mesomphix perlaevis</i>
Smooth coil	<i>Helicodiscus singleyanus</i>
Snail, no common name	<i>Guppya sterkii</i>
Snowhill ambersnail	<i>Catinella hubrichti</i>
Southeastern tigersnail	<i>Anguispira strongyloides</i>
Southern pinecone	<i>Strobilops texasianus</i>
Spike-lip crater	<i>Appalachina sayana</i>
Spiral mountain glyph	<i>Glyphyalinia carolinensis</i>
Spirit supercoil	<i>Paravitrea hera</i>
Split-tooth dome	<i>Ventridens virginicus</i>
Spruce Knob threetooth	<i>Triodopsis picea</i>
Suborb glyph	<i>Glyphyalinia sculptilis</i>
Suboval ambersnail	<i>Catinella vermeta</i>
Swamp vertigo	<i>Vertigo teskeyae</i>
Talus coil	<i>Helicodiscus triodus</i>
Tapered vertigo	<i>Vertigo elatior</i>
Temperate coil	<i>Helicodiscus shimeki</i>
Texas liptooth	<i>Linisa texasiana</i>
Thin glyph	<i>Glyphyalinia cryptomphala solida</i>
Thin pillar	<i>Cochlicopa lubricella</i>
Thin-lip vallyonia	<i>Vallonia perspectiva</i>
Throaty dome	<i>Ventridens gularis</i>
Tight coil	<i>Helicodiscus notius</i>
Tight-gapped shagreen	<i>Inflectarius approximans</i>
Tiny liptooth	<i>Lobosculum pustuloides</i>
Toga mantleslug	<i>Philomycus togatus</i>
Toothed globe	<i>Mesodon zaletus</i>
Toothed hive	<i>Euconulus dentatus</i>
Toothless column	<i>Columella edentula</i>
Trumpet vallyonia	<i>Vallonia parvula</i>
Twilight coil	<i>Helicodiscus multidentis</i>
Upland pillsnail	<i>Euchemotrema fraternum</i>
Variable mantleslug	<i>Pallifera varia</i>
Variable vertigo	<i>Vertigo gouldi</i>
Velvet wedge	<i>Xolotrema denotatum</i>
Virginia bladetooth	<i>Patera panselenus</i>
Virginia fringed mountain snail	<i>Polygyriscus virginianus</i>
Virginia mantleslug	<i>Philomycus virginicus</i>
Wax dome	<i>Ventridens cerinoideus</i>
White snaggletooth	<i>Gastrocopta tappaniana</i>
Whitelip	<i>Neohelix albolabris</i>

White-lip dagger	<i>Pupoides albilabris</i>
White-lip globe	<i>Mesodon thyroidus</i>
Widespread column	<i>Pupilla muscorum</i>
Wild hive	<i>Euconulus chersinus</i>
Winding mantleslug	<i>Philomycus flexuolaris</i>
Wing snaggletooth	<i>Gastrocopta procera</i>
Woody mantleslug	<i>Pallifera megaphallica</i>
Wrinkled button	<i>Mesomphix rugeli</i>
Yellow dome	<i>Ventridens pilsbryi</i>
Yellow gardenslug	<i>Limax flavus</i>
Yellow globelet	<i>Mesodon clausus</i>
<u>Freshwater Fingernailclams:</u>	
Adam peaclam	<i>Pisidium adamsi</i>
Asian clam *	<i>Corbicula fluminea *</i>
Greater eastern peaclam	<i>Pisidium dubium</i>
Grooved fingernailclam	<i>Sphaerium simile</i>
Herrington fingernailclam	<i>Sphaerium occidentale</i>
Lake fingernailclam	<i>Musculium lacustre</i>
Long fingernailclam	<i>Musculium transversum</i>
Pond fingernailclam	<i>Musculium securis</i>
Ridgedbeak peaclam	<i>Pisidium compressum</i>
River fingernailclam	<i>Sphaerium fabale</i>
Round peaclam	<i>Pisidium equilaterale</i>
Shiny peaclam	<i>Pisidium nitidium</i>
Striate peaclam	<i>Pisidium punctiferum</i>
Striated fingernailclam	<i>Sphaerium striatinum</i>
Swamp fingernailclam	<i>Musculium partumeium</i>
Triangular peaclam	<i>Pisidium variable</i>
Ubiquitous peaclam	<i>Pisidium casertanum</i>
Walker peaclam	<i>Pisidium walkeri</i>
<b><u>FRESHWATER CRUSTACEANS:</u></b>	
<u>Freshwater Crayfish:</u>	
Acuminate crayfish	<i>Cambarus acuminatus</i>
Allegheny crayfish	<i>Orconectes obscurus</i>
Angled crayfish	<i>Cambarus angularis</i>
Appalachian brook crayfish	<i>Cambarus bartonii cavatus</i>

Atlantic slope crayfish	<i>Cambarus longulus</i>
Big Sandy crayfish	<i>Cambarus veteranus</i>
Big water crayfish	<i>Cambarus robustus</i>
Blue crawfish	<i>Cambarus monongalensis</i>
Chowanoke crayfish	<i>Orconectes virginiensis</i>
Common crayfish	<i>Cambarus bartonii bartonii</i>
Crayfish, no common name	<i>Cambarus upenus</i>
Crayfish, no common name	<i>Orconectes spinosus</i>
Devil crawfish	<i>Cambarus diogenes</i>
Digger crayfish	<i>Fallicambarus fodiens</i>
Longclaw crayfish	<i>Cambarus buntingi</i>
Longnose crayfish	<i>Cambarus longirostris</i>
New River crayfish	<i>Cambarus chasmodactylus</i>
Red swamp crawfish *	<i>Procambarus clarkii</i> *
Redclaw crayfish *	<i>Cherax quadricarinatus</i> *
Reticulate crayfish	<i>Orconectes erichsonianus</i>
Rock crawfish	<i>Cambarus carinirostris</i>
Rusty crayfish *	<i>Orconectes rusticus</i> *
Spiny scale crayfish	<i>Cambarus jezerinaci</i>
Spiny stream crayfish	<i>Orconectes cristavarius</i>
Spinycheek crayfish	<i>Orconectes limosus</i>
Surgeon crayfish	<i>Orconectes forceps</i>
Teays River crayfish	<i>Cambarus sciotensis</i>
Upland burrowing crayfish	<i>Cambarus dubius</i>
Virile crayfish *	<i>Orconectes virilis</i> *
White River crawfish	<i>Procambarus acutus</i>
<u>Other Freshwater Crustaceans (partial):</u>	
Alleghany County cave amphipod	<i>Stygobromus hoffmani</i>
Appalachian Valley cave amphipod	<i>Crangonyx antennatus</i>
Bath County cave amphipod	<i>Stygobromus mundus</i>
Big Levels spring amphipod	<i>Stygobromus sp. 18</i>
Big white amphipod	<i>Crangonyx gracilis</i>
Bigger's cave amphipod	<i>Stygobromus biggersi</i>
Bland County amphipod	<i>Crangonyx sp. 3</i>
Blue Ridge Mountain amphipod	<i>Stygobromus spinosus</i>
Burnsville Cove cave amphipod	<i>Stygobromus conradi</i>
Cave amphipod (Bath, Highland Co.), no common name	<i>Stygobromus sp. 20</i>
Cave amphipod (Botetourt County), no common name	<i>Stygobromus sp. 10</i>
Cave amphipod (Nelson County), no common name	<i>Stygobromus sp. 11</i>

Cave amphipod (Patrick County), no common name	<i>Stygobromus sp. 13</i>
Cave amphipod (Rockbridge County), no common name	<i>Stygobromus sp. 12</i>
Cave amphipod (Scott Co.), no common name	<i>Stygobromus sp. 19</i>
Cave amphipod (Shenandoah County), no common name	<i>Stygobromus sp. 9</i>
Clam shrimp, no common name	<i>Eulimnadia sp. 1</i>
Copepod, no common name	<i>Acanthocyclops brevispinosus</i>
Copepod, no common name	<i>Acanthocyclops robustus s.l.</i>
Craig County cave amphipod	<i>Stygobromus estesi</i>
Cumberland cave amphipod	<i>Stygobromus cumberlandus</i>
Cumberland Gap cave amphipod	<i>Baetrurus sp. 2</i>
Cumberland Gap cave isopod	<i>Caecidotea cumberlandensis</i>
Cumberland isopod	<i>Caecidotea sp. 7</i>
Dismal Swamp isopod	<i>Caecidotea attenuatus</i>
Eastern fairy shrimp	<i>Eubbranchipus vernalis</i>
Ephemeral cave amphipod	<i>Stygobromus ephemerus</i>
Finley's cave amphipod	<i>Stygobromus finleyi</i>
Grayson crayfish ostracod	<i>Ascetoethere cosmata</i>
Greenbriar Valley cave isopod	<i>Caecidotea holsingeri</i>
Groundwater amphipod, no common name	<i>Stygobromus sp. 15</i>
Helseley's cave amphipod	<i>Stygobromus sp. 16</i>
Henrot's Cave isopod	<i>Caecidotea henroti</i>
Holman fairy shrimp	<i>Eubbranchipus holmanii</i>
Incurved cave isopod	<i>Caecidotea incurva</i>
James cave amphipod	<i>Stygobromus abditus</i>
Lancaster County amphipod	<i>Crangonyx sp. 5</i>
Lee County cave amphipod	<i>Stygobromus leensis</i>
Lee County cave isopod	<i>Lirceus usdagalun</i>
Lee County terrestrial cave isopod	<i>Ligidium elrodii leensis</i>
Luray Caverns amphipod	<i>Stygobromus pseudospinosus</i>
Madison Cave amphipod	<i>Stygobromus stegerorum</i>
Madison Cave isopod	<i>Antrolana lira</i>
Massanutten spring amphipod	<i>Stygobromus sp. 17</i>
Montgomery County cave amphipod	<i>Stygobromus fergusonii</i>
Morrison's cave amphipod	<i>Stygobromus morrisoni</i>
Mount Rogers groundwater amphipod	<i>Stygobromus sp. 8</i>
Natural Bridge cave isopod	<i>Caecidotea bowmani</i>
New Castle Murder Hole amphipod	<i>Stygobromus interitus</i>
Northern spring amphipod	<i>Gammarus pseudolimnaeus</i>
Northern Virginia well amphipod	<i>Stygobromus phreaticus</i>
Ohio shrimp	<i>Macrobrachium ohione</i>
Phreatic isopod	<i>Caecidotea phreatica</i>

Pittsylvania well amphipod	<i>Stygobromus obrutus</i>
Pizzini's amphipod	<i>Stygobromus pizzinii</i>
Potomac groundwater amphipod	<i>Stygobromus tenuis</i>
Powell Valley terrestrial cave isopod	<i>Amerigoniscus henroti</i>
Price's cave isopod	<i>Caecidotea pricei</i>
Racovitza's terrestrial cave isopod	<i>Miktoniscus racovitzae</i>
Rappahannock spring amphipod	<i>Stygobromus sp. 21</i>
Rock Creek groundwater amphipod	<i>Stygobromus kenki</i>
Rockbridge County cave amphipod	<i>Stygobromus barodyi</i>
Rye Cove isopod	<i>Lirceus culveri</i>
Scott County terrestrial cave isopod	<i>Ligidium elrodii scottensis</i>
Shenandoah Mountain spring amphipod	<i>Stygobromus sp. 23</i>
Shenandoah Valley cave amphipod	<i>Stygobromus gracilipes</i>
Sherando spinosoid amphipod	<i>Stygobromus sp. 7</i>
Southwestern Virginia cave amphipod	<i>Stygobromus mackini</i>
Southwestern Virginia cave isopod	<i>Caecidotea recurvata</i>
Tennessee Valley cave isopod	<i>Caecidotea richardsonae</i>
Tidewater amphipod	<i>Stygobromus indentatus</i>
Tidewater interstitial amphipod	<i>Stygobromus araeus</i>
Vandel's cave isopod	<i>Caecidotea vandeli</i>
<b><u>MILLIPEDES (PARTIAL):</u></b>	
Aeto millipede	<i>Conotyla aeto</i>
Big Cedar Creek millipede	<i>Brachoria falcifera</i>
Blowing Rock millipede	<i>Cleidogona medialis</i>
Brooks millipede	<i>Dixioria brooksi</i>
Cedar millipede	<i>Brachoria cedra</i>
Celeno millipede	<i>Conotyla celeno</i>
Collinwood millipede	<i>Brachoria mendota</i>
Duke Forest xystodesmid	<i>Nannaria conservata</i>
Ellett Valley pseudotremia	<i>Pseudotremia cavernarum</i>
Faithful millipede	<i>Cleidogona fidelitor</i>
Hoffman's cleidogonid millipede	<i>Cleidogona hoffmani</i>
Hoffman's xystodesmid millipede	<i>Brachoria hoffmani</i>
Hungry Mother millipede	<i>Brachoria ethotela</i>
Keeton's millipede	<i>Brachoria laminata</i>
Laurel Creek xystodesmid	<i>Sigmoria whiteheadi</i>
Mcgraw Gap xystodesmid	<i>Nannaria ericacea</i>
Melinda millipede	<i>Conotyla melinda</i>
Millipede (Elm Hill), no common name	<i>Aniulus sp. 1</i>

Millipede, no common name	<i>Abacion tessellatum</i>
Millipede, no common name	<i>Andrognathus corticarius</i>
Millipede, no common name	<i>Aniulus orientalis</i>
Millipede, no common name	<i>Aniulus sp. 1</i>
Millipede, no common name	<i>Apheloria tigana</i>
Millipede, no common name	<i>Apheloria virginiensis montana</i>
Millipede, no common name	<i>Apheloria virginiensis virginiensis</i>
Millipede, no common name	<i>Auturus erythropygos</i>
Millipede, no common name	<i>Boraria infesta</i>
Millipede, no common name	<i>Brachoria dentata</i>
Millipede, no common name	<i>Brachoria insolita</i>
Millipede, no common name	<i>Brachoria separanda</i>
Millipede, no common name	<i>Brachoria separanda calcaria</i>
Millipede, no common name	<i>Brachoria separanda hamata</i>
Millipede, no common name	<i>Brachoria separanda versicolor</i>
Millipede, no common name	<i>Brachycybe lecontii</i>
Millipede, no common name	<i>Buotus carolinus</i>
Millipede, no common name	<i>Cambala hubrichtii</i>
Millipede, no common name	<i>Cambala minor</i>
Millipede, no common name	<i>Chaetaspis albus</i>
Millipede, no common name	<i>Cherokia georgiana latassa</i>
Millipede, no common name	<i>Cleidogona lachesis</i>
Millipede, no common name	<i>Conotyia sp. 1</i>
Millipede, no common name	<i>Desmonus earlei</i>
Millipede, no common name	<i>Dixioria pela coronata (=D. coronata)</i>
Millipede, no common name	<i>Dixioria fowleri</i>
Millipede, no common name	<i>Euryurus leachi fraternus</i>
Millipede, no common name	<i>Gyalostethus monticolens</i>
Millipede, no common name	<i>Nannaria morrisoni</i>
Millipede, no common name	<i>Nannaria simplex</i>
Millipede, no common name	<i>Nannaria wilsoni</i>
Millipede, no common name	<i>Nopoiulus kochi</i>
Millipede, no common name	<i>Okeanobates americanus</i>
Millipede, no common name	<i>Onomeris underwoodi</i>
Millipede, no common name	<i>Orinisobates nigrior</i>
Millipede, no common name	<i>Petaserpes rosalbus</i>
Millipede, no common name	<i>Petaserpes strictus</i>
Millipede, no common name	<i>Polyzonium rosalbum</i>
Millipede, no common name	<i>Polyzonium strictum</i>
Millipede, no common name	<i>Pseudopolydesmus paludicolous</i>
Millipede, no common name	<i>Pseudotremia alecto</i>

Millipede, no common name	<i>Pseudotremia armesi</i>
Millipede, no common name	<i>Pseudotremia momus</i>
Millipede, no common name	<i>Pseudotremia princeps</i>
Millipede, no common name	<i>Pseudotremia sublevis</i>
Millipede, no common name	<i>Pseudotremia tuberculata</i>
Millipede, no common name	<i>Pseudotremia valga</i>
Millipede, no common name	<i>Rudiloria kleinpeteri</i>
Millipede, no common name	<i>Rudiloria trimaculata tortua</i>
Millipede, no common name	<i>Scytonotus virginicus</i>
Millipede, no common name	<i>Semionellus placidus</i>
Millipede, no common name	<i>Sigmoria latior latior</i>
Millipede, no common name	<i>Striaria causeyae</i>
Millipede, no common name	<i>Striaria columbiana</i>
Millipede, no common name	<i>Striaria granulosa</i>
Millipede, no common name	<i>Striaria sp. a</i>
Millipede, no common name	<i>Thalassisobates littoralis</i>
Millipede, no common name	<i>Trichomeris sinuata</i>
Millipede, no common name	<i>Trichopetalum dux</i>
Millipede, no common name	<i>Trichopetalum lunatum</i>
Millipede, no common name	<i>Trichopetalum packardi</i>
Millipede, no common name	<i>Trichopetalum weyeriense</i>
Millipede, no common name	<i>Trichopetalum whitei</i>
Millipede, no common name	<i>Uroblaniulus canadensis</i>
Millipede, no common name	<i>Uroblaniulus jerseyi</i>
Millipede (Burkes Garden), no common name	<i>Uroblaniulus sp. 1</i>
Millipede, no common name	<i>Virgoiulus minutus</i>
Powell Mountain millipede sp 1	<i>Brachoria sp. 1</i>
Powell Mountain millipede sp 2	<i>Brachoria sp. 2</i>
Roaring Branch Nannaria millipede	<i>Nannaria sp. 1</i>
Roaring Branch Pseudotremia millipede	<i>Pseudotremia sp. 2</i>
Shenandoah Mountain xystodesmid	<i>Nannaria shenandoah</i>
Smith Creek xystodesmid	<i>Nannaria laminata</i>
Turner's millipede	<i>Brachoria turneri</i>
Venetia millipede	<i>Conotyla venetia</i>
<b><u>CENTIPEDES:</u></b>	
Centipede, montane	<i>Escaryus cryptorobius</i>
Centipede, no common name	<i>Escaryus ethopus</i>
Centipede, Whitetop Mountain	<i>Escaryus orestes</i>
<b><u>INSECTS:</u></b>	



<u>Butterflies &amp; Moths:</u>	
Aaron's skipper	<i>Poanes aaroni</i>
Ailanthus webworm moth	<i>Atteva punctella</i>
American copper	<i>Lycaena phlaeas</i>
American lady	<i>Vanessa virginiensis</i>
American snout	<i>Libytheana carinenta</i>
Angus' underwing	<i>Catocala angusi</i>
Aphrodite fritillary	<i>Speyeria aphrodite</i>
Appalachian azure	<i>Celastrina neglectamajor</i>
Appalachian brown	<i>Satyroides appalachia</i>
Appalachian grizzled skipper	<i>Pyrgus wyandot</i>
Apple sphinx	<i>Sphinx gordius</i>
Aralia shoot borer moth	<i>Papaipema araliae</i>
Army cutworm	<i>Euxoa auxiliaris</i>
Armyworm, no common name	<i>Pseudaletia unipuncta</i>
Arogos skipper	<i>Atrytone arogos</i>
Ash sphinx	<i>Manduca jasminearum</i>
Aster borer moth	<i>Papaipema impecuniosa</i>
Asteroid moth	<i>Cucullia asteroides</i>
Atlantic graphic moth	<i>Drasteria graphica atlantica</i>
Atlantis fritillary	<i>Speyeria atlantis</i>
Attentive dart moth	<i>Eueretagrotis attenta</i>
Aureolaria seed borer moth	<i>Rhodoecia aurantiago</i>
Azalea sphinx	<i>Darapsa myron</i>
Baltimore checkerspot	<i>Euphydryas phaeton</i>
Banded hairstreak	<i>Satyrium calanus</i>
Banded tussock moth	<i>Halysidota tessellaris</i>
Barred Itame moth	<i>Itame subcessaria</i>
Barred yellow	<i>Eurema दौरa</i>
Barrens dagger moth	<i>Acronicta albarufa</i>
Barrens Itame (cf l. Inextricata)	<i>Itame sp. 1</i>
Beautiful Eutelia moth	<i>Eutelia pulcherrima</i>
Bina flower moth	<i>Schinia bina</i>
Black arches	<i>Melanchra assimilis</i>
Black cutworm	<i>Agrotis ipsilon</i>
Black dash	<i>Euphyes conspicua</i>
Black swallowtail	<i>Papilio polyxenes</i>
Black zipzag	<i>Panthea acronyctoides</i>
Black-dashed Hydriomena moth	<i>Hydriomena divisaria</i>

Blinded sphinx	<i>Paonias excaecatus</i>
Blueberry Gray	<i>Glena cognataria</i>
Bordered Apamea moth	<i>Apamea finitima</i>
Boreal fan moth	<i>Brachionycha borealis</i>
Boston dart moth	<i>Euxoa bostoniensis</i>
Bracken fern borer moth	<i>Papaipema pterisii</i>
Brazilian skipper	<i>Calpododes ethlius</i>
Bristly cutworm moth	<i>Lacinipolia renigera</i>
Broad-lined Erastria moth	<i>Erastria coloraria</i>
Broad-winged skipper	<i>Poanes viator</i>
Bronze copper	<i>Lycaena hyllus</i>
Brown elfin	<i>Callophrys augustinus</i>
Brown flower moth	<i>Schinia saturata</i>
Brown pine looper moth	<i>Caripeta angustiorata</i>
Brown-lined dart moth	<i>Anaplectoides brunneomedia</i>
Buchholz's gray moth	<i>Hypomecis buchholzaria</i>
Buck moth	<i>Hemileuca maia</i>
Cabbage white *	<i>Pieris rapae</i>
Cane Apamea moth	<i>Apamea sp. 1</i>
Cane moth, no common name	<i>Apameini new genus 1, sp. 1</i>
Cane moth, no common name	<i>Apameini new genus 2, sp. 1</i>
Cane moth, no common name	<i>Apameini new genus 2, sp. 2</i>
Cane moth, no common name	<i>Apameini new genus 2, sp. 3</i>
Cane moth, no common name	<i>Argillophora furcilla</i>
Cane moth, no common name	<i>Franclimontia interrogans</i>
Cane moth, no common name	<i>Leucania calidior</i>
Cane-boring moth	<i>Acrapex relictia</i>
Carolina road-skipper	<i>Amblyscirtes carolina</i>
Carolina satyr	<i>Hermeuptychia sosybius</i>
Carolina sphinx	<i>Manduca sexta</i>
Carus skipper	<i>Polites carus</i>
Catalpa sphinx	<i>Ceratonia catalpae</i>
Cecropia silkmoth	<i>Hyalophora cecropia</i>
Chain fern borer moth	<i>Papaipema stenocelis</i>
Checkered white	<i>Pontia protodice</i>
Chestnut leaf miner moth	<i>Tischeria perplexa</i>
Chocolate moth	<i>Acherdoa ferraria</i>
Clouded skipper	<i>Lerema accius</i>
Clouded sulphur	<i>Colias philodice</i>
Cloudless sulphur	<i>Phoebis sennae</i>
Cobweb skipper	<i>Hesperia metea</i>

Colona moth	<i>Haploa colona</i>
Columbine duskywing	<i>Erynnis lucilius</i>
Common buckeye	<i>Junonia coenia</i>
Common checkered-skipper	<i>Pyrgus communis</i>
Common road-skipper	<i>Amblyscirtes vialis</i>
Common sootywing	<i>Pholisora catullus</i>
Common wood-nymph	<i>Cercyonis pegala</i>
Comstock's swallow	<i>Feralia comstocki</i>
Coneflower borer moth	<i>Papaipema nelita</i>
Confused cloudywing	<i>Thorybes confusus</i>
Consort underwing	<i>Catocala consors sorsconi</i>
Coral hairstreak	<i>Satyrium titus</i>
Creole pearly-eye	<i>Enodia creola</i>
Crossline skipper	<i>Polites origenes</i>
Currant spanworm moth	<i>Itame ribearia</i>
Cypress moth, no common name	<i>Cutina aluticolor</i>
Cypress moth, no common name	<i>Cutina distincta</i>
Cypress sphinx	<i>Isoparce cupressi</i>
Dagger moth, no common name	<i>Acronicta brumosa</i>
Dagger moth, no common name	<i>Acronicta tristis</i>
Dainty sulphur	<i>Nathalis iole</i>
Dark Homochlodes moth	<i>Homochlodes disconventa</i>
Dark stoneroot borer moth	<i>Papaipema duplicata</i>
Dart moth, no common name	<i>Euxoa declarata</i>
Dart moth, no common name	<i>Euxoa fumalis</i>
Dart moth, no common name	<i>Euxoa obeliscoides</i>
Dart moth, no common name	<i>Pseudohermonassa tenuicula</i>
Delaware skipper	<i>Anatrytone logan</i>
Delightful Bird-dropping moth	<i>Acontia delecta</i>
Diana fritillary	<i>Speyeria diana</i>
Dimorphic Eulithis moth	<i>Eulithis molliculata</i>
Dingy cutworm	<i>Feltia ducens</i>
Dion skipper	<i>Euphyes dion</i>
Doll's Merolonch	<i>Merolonche dolli</i>
Dotted skipper	<i>Hesperia attalus</i>
Double-banded Zale moth	<i>Zale calycanthata</i>
Dreamy duskywing	<i>Erynnis icelus</i>
Duke's skipper	<i>Euphyes dukesi</i>
Dun skipper	<i>Euphyes vestris</i>
Dusky azure	<i>Celastrina nigra (=ebinina)</i>
Dusky road-skipper	<i>Amblyscirtes alternata</i>

Dusted skipper	<i>Atrytonopsis hianna</i>
Early hairstreak	<i>Erora laeta</i>
Eastern comma	<i>Polygonia comma</i>
Eastern pine elfin	<i>Callophrys niphon</i>
Eastern tailed-blue	<i>Everes comyntas</i>
Eastern tiger swallowtail	<i>Papilio glaucus</i>
Edwards' hairstreak	<i>Satyrium edwardsii</i>
Elfin emerald	<i>Nemoria elfa</i>
Elm sphinx	<i>Ceratonia amyntor</i>
Emerald moth, no common name	<i>Nemoria mimosaria</i>
Eufala skipper	<i>Lerodea eufala</i>
European skipper *	<i>Thymelicus lineola</i>
Falcate orangetip	<i>Anthocharis midea</i>
Fall cankerworm	<i>Alsophila pometaria</i>
Fall webworm	<i>Hyphantria cunea</i>
Fiery skipper	<i>Hylephila phyleus</i>
Figwort borer moth	<i>Hydraecia stramentosa</i>
Fillet dart moth	<i>Euxoa redimicula</i>
Fingered dagger moth	<i>Acronicta dactylina</i>
Five-spotted hawk moth	<i>Manduca quinquemaculata</i>
Flower moth, no common name	<i>Schinia nubila</i>
Flower moth, no common name	<i>Schinia siren</i>
Four-lined Cabera moth	<i>Cabera quadrifasciaria</i>
Four-lined chocolate moth	<i>Argyrostromis quadrifilaris</i>
Franck's sphinx	<i>Sphinx franckii</i>
Fraser fir geometrid	<i>Semiothisa fraserata</i>
Frosted elfin	<i>Callophrys irus</i>
Funerary dagger moth	<i>Acronicta funeralis</i>
Gemmed satyr	<i>Cyllopsis gemma</i>
Geometrid moth, no common name	<i>Anticlea vasilata</i>
Geometrid moth, no common name	<i>Cyclophora myrtaria</i>
Geometrid moth, no common name	<i>Cymatophora approximaria</i>
Geometrid moth, no common name	<i>Dysstroma citrata</i>
Geometrid moth, no common name	<i>Euchlaena marginaria</i>
Geometrid moth, no common name	<i>Euchlaena muzaria</i>
Geometrid moth, no common name	<i>Hydriomena bistrifolata</i>
Geometrid moth, no common name	<i>Idaea taturata</i>
Geometrid moth, no common name	<i>Iridopsis pergracilis</i>
Geometrid moth, no common name	<i>Itame abruptata</i>
Geometrid moth, no common name	<i>Lophosis labeculata</i>
Geometrid moth, no common name	<i>Lytrosis permagnaria</i>

Geometrid moth, no common name	<i>Metarranthis amyrisaria</i>
Geometrid moth, no common name	<i>Metarranthis mestusata</i>
Geometrid moth, no common name	<i>Metarranthis sp. 1</i>
Geometrid moth, no common name	<i>Orthofidonia exornata</i>
Geometrid moth, no common name	<i>Pero zalissaria</i>
Geometrid moth, no common name	<i>Semiothisa distribuaria</i>
Geometrid moth, no common name	<i>Xanthorhoe iduata</i>
Georgia satyr	<i>Neonympha areolata</i>
German cousin moth	<i>Sideridis congermana</i>
Ghost moth (no common name)	<i>Hepialus sciophanes</i>
Giant swallowtail	<i>Papilio crespontes</i>
Goatweed leafwing	<i>Anaea andria</i>
Golden-banded skipper	<i>Autochton cellus</i>
Granitosa fern moth	<i>Callopietria granitosa</i>
Gray hairstreak	<i>Strymon melinus</i>
Gray sallow	<i>Psaphida grandis</i>
Great ash sphinx	<i>Sphinx chersis</i>
Great purple hairstreak	<i>Atlides halesus</i>
Great southern white	<i>Ascia monuste</i>
Great spangled fritillary	<i>Speyeria cybele</i>
Green arches	<i>Anaplectoides prasina</i>
Green cloverworm moth	<i>Plathypena scabra</i>
Green comma	<i>Polygonia faunus</i>
Grizzled skipper	<i>Pyrgus wyandot</i>
Gulf fritillary	<i>Agraulis vanillae nigrior</i>
Hackberry emperor	<i>Asterocampa celtis</i>
Harvester	<i>Feniseca tarquinius</i>
Hawthorn underwing	<i>Catocala crataegi</i>
Hayhurst's scalloppwing	<i>Staphylus hayhurstii</i>
Hebard's noctuid moth	<i>Erythroccia hebaridi</i>
Henry's elfin	<i>Callophrys henrici</i>
Hermit sphinx	<i>Sphinx eremitus</i>
Herodias underwing,	<i>Catocala herodias</i>
Hesitant dagger moth	<i>Acronicta haesitata</i>
Hessel's hairstreak	<i>Callophrys hesseli</i>
Hickory hairstreak	<i>Satyrium caryaevorum</i>
Hoary edge	<i>Achalarus lyciades</i>
Hoary elfin	<i>Callophrys polius</i>
Hobomok skipper	<i>Poanes hobomok</i>
Horace's duskywing	<i>Erynnis horatius</i>
Hummingbird clearwing	<i>Hemaris thysbe</i>

Hydrangea sphinx	<i>Darapsa versicolor</i>
Imperial moth	<i>Eacles imperialis</i>
Inconsolable underwing	<i>Catocala insolabilis</i>
Indian skipper	<i>Hesperia sassacus</i>
Io moth	<i>Automeris io</i>
Juvenal's duskywing	<i>Erynnis juvenalis</i>
King's hairstreak	<i>Satyrium kingi</i>
Labrador carpet	<i>Xanthorhoe labradorensis</i>
Lace-winged road-skipper	<i>Amblyscirtes aesculapius</i>
Large Hypena moth	<i>Hypena edictalis</i>
Large looper moth	<i>Autographa ampla</i>
Laurel sphinx	<i>Sphinx kalmiae</i>
Leafcup borer moth	<i>Papaipema polymniae</i>
Least skipper	<i>Ancyloxypha numitor</i>
Lemmer's pinion moth	<i>Lithophane lemmeri</i>
Leonard's skipper	<i>Hesperia leonardus</i>
Little glassywing	<i>Pompeius verna</i>
Little metalmark	<i>Calephelis borealis</i>
Little wood-satyr	<i>Megisto cymela</i>
Little yellow	<i>Eurema lisa</i>
Long dash	<i>Polites mystic</i>
Long-tailed skipper	<i>Urbanus proteus</i>
Looper moth	<i>Euchlaena milnei</i>
Luna moth	<i>Actias luna</i>
Many-lined carpet	<i>Anticlea multiferata</i>
Maple spanworm moth	<i>Ennomos magnaria</i>
Marbled carpet	<i>Dysstroma truncata</i>
Marbled underwing	<i>Catocala marmorata</i>
Maritime Zale moth	<i>Zale sp. 3</i>
Meadow fritillary	<i>Boloria bellona</i>
Meadow rue borer moth	<i>Papaipema unimoda</i>
Merry Melipotis moth	<i>Melipotis jucunda</i>
Messalina underwing	<i>Catocala messalina</i>
Miranda underwing	<i>Catocala miranda</i>
Mixed dart moth	<i>Euxoa immixta</i>
Modest Quaker moth	<i>Ulolonche modesta</i>
Monarch	<i>Danaus plexippus</i>
Mother underwing	<i>Catocala parta</i>
Mottled duskywing	<i>Erynnis martialis</i>
Mottled Euchlaena moth	<i>Euchlaena tigrinaria</i>
Mourning Cloak	<i>Nymphalis antiopa</i>

Mustard white	<i>Pieris napi</i>
Nameless pinion moth	<i>Lithophane innominata</i>
Nessus sphinx	<i>Amphion floridensis</i>
New Jersey tea inchworm moth	<i>Apodrepanulatrix liberaria</i>
Noctuid moth, no common name	<i>Abrostola ovalis</i>
Noctuid moth, no common name	<i>Amolita obliqua</i>
Noctuid moth, no common name	<i>Apamea cariosa</i>
Noctuid moth, no common name	<i>Apamea plutonia</i>
Noctuid moth, no common name	<i>Aplectoides condita</i>
Noctuid moth, no common name	<i>Argyrostromis deleta</i>
Noctuid moth, no common name	<i>Argyrostromis sylvarum</i>
Noctuid moth, no common name	<i>Chortodes inquinata</i>
Noctuid moth, no common name	<i>Cucullia alfarata</i>
Noctuid moth, no common name	<i>Cucullia florea</i>
Noctuid moth, no common name	<i>Diachrysia balluca</i>
Noctuid moth, no common name	<i>Emarginea percara</i>
Noctuid moth, no common name	<i>Hadena ectypa</i>
Noctuid moth, no common name	<i>Hyppa contrasta</i>
Noctuid moth, no common name	<i>Lacinipolia lustralis</i>
Noctuid moth, no common name	<i>Leucania commoides</i>
Noctuid moth, no common name	<i>Lithacodia albidula</i>
Noctuid moth, no common name	<i>Lithacodia sp. 1</i>
Noctuid moth, no common name	<i>Meropleon cosmion</i>
Noctuid moth, no common name	<i>Meropleon titan</i>
Noctuid moth, no common name	<i>Metria amella</i>
Noctuid moth, no common name	<i>Morrisonia sp. 1</i>
Noctuid moth, no common name	<i>Oligia crytora</i>
Noctuid moth, no common name	<i>Oligia exhausta</i>
Noctuid moth, no common name	<i>Oxycilla mitographa</i>
Noctuid moth, no common name	<i>Paectes abrostolella</i>
Noctuid moth, no common name	<i>Pangrapta sp. 1</i>
Noctuid moth, no common name	<i>Polychrysia morigera</i>
Noctuid moth, no common name	<i>Properigea sp. 1</i>
Noctuid moth, no common name	<i>Psaphida thaxterianus</i>
Noctuid moth, no common name	<i>Richia grotei</i>
Noctuid moth, no common name	<i>Trichosilia manifesta</i>
Noctuid moth, no common name	<i>Zale curema</i>
Noctuid moth, no common name	<i>Zale submediana</i>
Noctuid moth, no common name	<i>Zanclognatha gypsalis</i>
Noctuid moth, no common name	<i>Zanclognatha sp. 1</i>
Nondescript dagger moth	<i>Acronicta spinigera</i>

Northern broken dash	<i>Wallengrenia egeremet</i>
Northern cloudywing	<i>Thorybes pylades</i>
Northern crescent	<i>Phyciodes selenis</i>
Northern hairstreak	<i>Fixsenia favonius ontario</i>
Northern pearly-eye	<i>Enodia anthedon</i>
Northern Petrophora moth	<i>Petrophora subaequaria</i>
Northern pine sphinx	<i>Lapara bombycoides</i>
Oblong sedge borer moth	<i>Archanara oblonga</i>
Ocola skipper	<i>Panoquina ocola</i>
Olive angle shades	<i>Phlogophora iris</i>
Olive arches	<i>Lacinipolia olivacea</i>
Olive juniper hairstreak	<i>Callophrys gryneus</i>
Olympia marble	<i>Euchloe olympia</i>
Orange Panopoda moth	<i>Panopoda repanda</i>
Orange sulphur	<i>Colias eurytheme</i>
Orange-barred sulphur	<i>Phoebis philea</i>
Orangestriped oakworm moth	<i>Anisota senatoria</i>
Osmunda stem borer moth	<i>Papaipema speciosissima</i>
Painted lady	<i>Vanessa cardui</i>
Palamedes swallowtail	<i>Papilio palamedes</i>
Palatka skipper	<i>Euphyes pilatka</i>
Pale Metanema moth	<i>Metanema inatomaria</i>
Pale Metarranthis moth	<i>Metarranthis indeclinata</i>
Pandorus sphinx	<i>Eumorpha pandorus</i>
Pearl crescent	<i>Phyciodes tharos</i>
Pearly-winged lichen moth	<i>Crambidia casta</i>
Peck's Eupithecia moth	<i>Eupithecia peckorum</i>
Peck's skipper	<i>Polites peckius</i>
Pepper and salt road-skipper	<i>Amblyscirtes hegon</i>
Persius duskywing	<i>Erynnis persius</i>
Pine barrens Zale moth	<i>Zale sp. 1</i>
Pine tussock moth	<i>Dasychira pinicola</i>
Pine-devil moth	<i>Citheronia sepulcralis</i>
Pinion moth, no common name	<i>Lithophane lepida adipel</i>
Pink-edged sulphur	<i>Colias interior</i>
Pink-streak moth	<i>Faronta rubripennis</i>
Pink-striped oakworm moth	<i>Anisota virginiensis</i>
Pink-striped willow spanworm moth	<i>Cabera variolaria</i>
Pipevine swallowtail	<i>Battus philenor</i>
Plebeian sphinx	<i>Paratreia plebeja</i>
Polyphemus moth	<i>Antheraea polyphemus</i>



Precious underwing (moth)	<i>Catocala pretiosa pretiosa</i>
Primrose moth	<i>Schinia florida</i>
Promethea silkmoth	<i>Callosamia promethea</i>
Prominent moth, no common name	<i>Heterocampa astarte</i>
Pure lichen moth	<i>Crambidia pura</i>
Putnam's looper moth	<i>Plusia putnami</i>
Puzzling dagger moth	<i>Acronicta subochrea</i>
Question mark	<i>Polygonia interrogationis</i>
Radcliffe's dagger moth	<i>Acronicta radcliffei</i>
Rare skipper	<i>Problema bulenta</i>
Rare spring moth	<i>Heliomata infulata</i>
Red admiral	<i>Vanessa atalanta</i>
Red-banded hairstreak	<i>Calycopis cecrops</i>
Red-spotted Lithacodia moth	<i>Lithacodia concinnimacula</i>
Red-spotted purple	<i>Limenitis arthemis astyanax</i>
Regal fritillary	<i>Speyeria idalia</i>
Regal moth	<i>Citheronia regalis</i>
Reversed road-skipper	<i>Amblyscirtes reversa</i>
Robinson's underwing	<i>Catocala robinsoni</i>
Rosy maple moth	<i>Dryocampa rubicunda</i>
Rustic sphinx	<i>Manduca rustica</i>
Sachem	<i>Atalopedes campestris</i>
Sad underwing	<i>Catocala maestosa</i>
Saint Francis' satyr	<i>Neonympha mitchellii francisci</i>
Sallow moth, no common name	<i>Pyrrhia adela</i>
Salt marsh skipper	<i>Panoquina panoquin</i>
Salt-and-pepper looper moth	<i>Syngrapha rectangula</i>
Sappho underwing	<i>Catocala sappho</i>
Scholastic dart moth	<i>Euxoa scholastica</i>
Seaside goldenrod borer moth	<i>Papaipema duovata</i>
Serene underwing	<i>Catocala serena</i>
Shivering pinion moth	<i>Lithophane querquera</i>
Sigmoid dart moth	<i>Eueretagrotis sigmoides</i>
Silver-bordered fritillary	<i>Boloria selene</i>
Silver-spotted skipper	<i>Epargyreus clarus</i>
Silvery blue	<i>Glaucopsyche lygdamus</i>
Silvery checkerspot	<i>Chlosyne nycteis</i>
Sleepy duskywing	<i>Erynnis brizo</i>
Sleepy orange	<i>Eurema nicippe</i>
Sleepy underwing	<i>Catocala concumbens</i>
Small-eyed sphinx	<i>Paonias myops</i>

Smyth's green comma	<i>Polygonia faunus smythi</i>
Smyth's apamea moth	<i>Apamea smythi</i>
Snowberry clearwing	<i>Hemerus diffinis</i>
Sordid Hypena moth	<i>Hypena sordidula</i>
Southeastern cane borer moth	<i>Papaipema sp 3</i>
Southern broken-dash	<i>Wallengrenia otho</i>
Southern cloudywing	<i>Thorybes bathyllus</i>
Southern dogface	<i>Colias cesonia</i>
Southern pearly-eye	<i>Enodia portlandia</i>
Southern pine sphinx	<i>Lapara coniferarum</i>
Southern Ptichodis moth	<i>Ptichodis bistrigata</i>
Southern Spragueia moth	<i>Spragueia dama</i>
Spear-marked black moth	<i>Rheumaptera hastata</i>
Spicebush swallowtail	<i>Papilio troilus</i>
Splendid dagger moth	<i>Acronicta superans</i>
Spiny oakworm moth	<i>Anisota stigma</i>
Spring azure	<i>Celastrina ladon</i>
Striped hairstreak	<i>Satyrium liparops</i>
Subdued Quaker moth	<i>Orthosia revicta</i>
Sunflower borer moth	<i>Papaipema necopina</i>
Swarthy skipper	<i>Nastra lherminier</i>
Sweet (or quiet) underwing	<i>Catocala dulciola</i>
Sweetbay silkmoth	<i>Callosamia securifera</i>
Sweetfern underwing	<i>Catocala antinympha</i>
Swift setwing	<i>Dythemis velox</i>
Tawny crescent	<i>Phyciodes batesii</i>
Tawny emperor	<i>Asterocampa clyton</i>
Tawny-edged skipper	<i>Polites themistocles</i>
Tersa sphinx	<i>Xylophanes tersa</i>
Thin-lined Erastria moth	<i>Erastria cruentaria</i>
Three-lined Balsa moth	<i>Balsa tristrigella</i>
Tuliptree silkmoth	<i>Callosamia angulifera</i>
Turtlehead borer moth	<i>Papaipema nepheleptena</i>
Tuscarora emerald	<i>Nemoria tuscarora</i>
Tussock moth, no common name	<i>Dasychira plagiata</i>
Two-spot dart moth	<i>Eueretagrotis perattenta</i>
Two-spotted skipper	<i>Euphyes bimacula</i>
Ulalume underwing	<i>Catocala ulalume</i>
Unexpected Cynia moth	<i>Cynia inopinatus</i>
Variegated fritillary	<i>Euptoieta claudia</i>
Viceroy	<i>Limnitis archippus</i>

Violet dart moth	<i>Euxoa violaris</i>
Virginia creeper sphinx	<i>Darapsa myron</i>
Walnut sphinx	<i>Laothoe juglandis</i>
Watson's Arugisa moth	<i>Arugisa watsoni</i>
Waved sphinx	<i>Ceratomia undulosa</i>
Welsh wave moth	<i>Venusia cambrica</i>
West Virginia white	<i>Pieris virginiensis</i>
Wetland borer moth, no common name	<i>Bellura anoa</i>
Wetland borer moth, no common name	<i>Bellura brehmei</i>
Wetland borer moth, no common name	<i>Bellura melanopyga</i>
Whirlabout	<i>Polites vibex</i>
White admiral	<i>Limenitis arthemis arthemis</i>
White Eulithis moth	<i>Eulithis explanata</i>
White M hairstreak	<i>Parrhasius m-album</i>
White underwing	<i>Catocala relictata</i>
Whitelined sphinx	<i>Hyles lineata</i>
White-ribboned carpet	<i>Mesoleuca ruficillata</i>
Wild cherry sphinx	<i>Sphinx drupiferarum</i>
Wild indigo duskywing	<i>Erynnis baptisiae</i>
Witch hazel dagger moth	<i>Acronicta hamamelis</i>
Wood-colored Apamea moth	<i>Apamea lignicolora</i>
Yehl skipper	<i>Poanes yehl</i>
Yellow stoneroot borer moth	<i>Papaipema astuta</i>
Yellow-edged Pygarctia moth	<i>Pygarctia abdominalis</i>
Yellow-headed lichen moth	<i>Crambidia cephalica</i>
Yellow-striped armyworm moth	<i>Spodoptera ornithogalli</i>
Young's dart moth	<i>Xestia youngii</i>
Zabulon skipper	<i>Poanes zabulon</i>
Zale moth, no common name	<i>Zale sp. 2</i>
Zarucco duskywing	<i>Erynnis zarucco</i>
Zebra swallowtail	<i>Eurytides marcellus</i>
<u>All Other Insects (Partial):</u>	
Acuminate water boatman	<i>Ramphocorixa acuminata</i>
Allegheny mayfly	<i>Ameletus cryptostimulus</i>
Allegheny river cruiser	<i>Macromia alleghaniensis</i>
American stag beetle	<i>Lucanus elaphus</i>
Appalachian grasshopper	<i>Appalachia hebardii</i>
Appalachian rhyacophilid caddisfly	<i>Rhyacophila appalachia</i>
Appalachian snaketail	<i>Ophiogomphus incurvatus alleghaniensis</i>

Asiatic garden beetle	<i>Maladera castanea</i>
Assassin bug, no common name	<i>Ctenotrachelus brimleyi</i>
Assassin bug, no common name	<i>Ploiaria hirticornis</i>
Assassin bug, no common name	<i>Pnirontis brimleyi</i>
Assassin bug, no common name	<i>Pnirontis languida</i>
Atlantic bluet	<i>Enallagma doubledayi</i>
Aurora damsel	<i>Chromagrion conditum</i>
Avernus cave beetle	<i>Pseudanophthalmus avernus</i>
Azure bluet	<i>Enallagma aspersum</i>
Banner clubtail	<i>Gomphus apomyius</i>
Barrens tiger beetle	<i>Cicindela patruela</i>
Beartown perlodid stonefly	<i>Isoperla major</i>
Beaverpond baskettail	<i>Epitheca canis</i>
Beaverpond clubtail	<i>Gomphus borealis</i>
Beetle, no common name	<i>Nemadus horni</i>
Beetle, no common name	<i>Paralichas trivittis</i>
Beetle, no common name	<i>Sosylus costatus</i>
Bent forestfly	<i>Ostrocerca prolongata</i>
Berner's Ephemerella mayfly	<i>Ephemerella berneri</i>
Black lordithon rove beetle	<i>Lordithon niger</i>
Black stalk-eyed bug	<i>Isthmocorius piceus</i>
Black Turfgrass Ataenius	<i>Ataenius spretulus</i>
Blackwater bluet	<i>Enallagma weewa</i>
Blue Ridge snowfly	<i>Allocapnia stannardi</i>
Blue Ridge springfly	<i>Remenus kirchneri</i>
Blue Ridge stonefly	<i>Perlesta frisoni</i>
Blue-fronted dancer	<i>Argia apicalis</i>
Blue-tipped dancer	<i>Argia tibialis</i>
Brook snaketail	<i>Ophiogomphus aspersus</i>
Bumble flower beetle	<i>Euphoria inda</i>
Burrower bug, no common name	<i>Melanaethus cavicollis</i>
Burrower bug, no common name	<i>Tominotus communis</i>
Burying beetle, no common name	<i>Nicrophorus defodiens</i>
Caddisfly, no common name	<i>Heteroplectron americanum</i>
Canada darner	<i>Aeshna canadensis</i>
Carolina big-headed tiger beetle	<i>Megacephala carolina</i>
Carolina salmonfly	<i>Pteronarcys scotti</i>
Carolina spreadwing	<i>Lestes vidua</i>
Carolina thread-legged bug	<i>Ploiaria carolina</i>
Carrot beetle	<i>Tomarus (Ligyris) gibbosus</i>
Catawba Cave beetle	<i>Pseudanophthalmus sp. 12</i>

Cave beetle (no common name)	<i>Pseudanophthalmus gracilis</i>
Cave beetle (no common name)	<i>Pseudanophthalmus vicarius</i>
Cave fly, no common name	<i>Spelobia tenebrarum</i>
Cave Pselaphid beetle, no common name	<i>Arianops jeanneli</i>
Chalk-fronted corporal skimmer	<i>Ladona julia</i>
Chapman's shore bug	<i>Isocytus chapmani</i>
Cherokee clubtail	<i>Gomphus consanguis</i>
Cinnamon shadowdragon	<i>Neurocordulia virginiensis</i>
Cobblestone tiger beetle	<i>Cicindela marginipennis</i>
Combneck assassin bug	<i>Ctenotrachelus shermani</i>
Common spreadwing	<i>Lestes disjunctus</i>
Coppery emerald	<i>Somatochlora georgiana</i>
Crossroads cave beetle	<i>Pseudanophthalmus intersectus</i>
Deceptive cave beetle	<i>Pseudanophthalmus deceptivus</i>
Delicate cave beetle	<i>Pseudanophthalmus delicatus</i>
Dismal Swamp green stink bug	<i>Chlorochroa dismalia</i>
Dorbeetle	<i>Geotrupes (Anoplotrupes) balyi</i>
Dot-tailed whiteface	<i>Leucorrhinia intacta</i>
Drake's water scorpion	<i>Ranatra drakei</i>
Dung or chafer beetle, no common name (Scarab)	<i>Aegialia blanchardi</i>
Dung or chafer beetle, no common name (Scarab)	<i>Aegialia humeralis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Aidophus parvus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Anomala binotata</i>
Dung or chafer beetle, no common name (Scarab)	<i>Anomala flavipennis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Anomala innuba</i>
Dung or chafer beetle, no common name (Scarab)	<i>Anomala lucicola</i>
Dung or chafer beetle, no common name (Scarab)	<i>Anomala marginata</i>
Dung or chafer beetle, no common name (Scarab)	<i>Anomala undulata</i>
Dung or chafer beetle, no common name (Scarab)	<i>Aphonus castaneus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Aphonus densicauda</i>
Dung or chafer beetle, no common name (Scarab)	<i>Aphonus tridentatus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Aphotaenius carolinus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius abditus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius alternatus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius apicalis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius brevis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius cylindrus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius fattigi</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius figurator</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius glaseri</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius gracilis</i>

Dung or chafer beetle, no common name (Scarab)	<i>Ataenius imbricatus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius insculptus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius miamii</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius ovatulus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius platensis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius simulator</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius strigatus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ataenius wenzelii</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ateuchus histeroides</i>
Dung or chafer beetle, no common name (Scarab)	<i>Ateuchus lecontei</i>
Dung or chafer beetle, no common name (Scarab)	<i>Canthon chalcites</i>
Dung or chafer beetle, no common name (Scarab)	<i>Canthon probus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Canthon vigilans</i>
Dung or chafer beetle, no common name (Scarab)	<i>Canthon viridis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Cremastocheilus (Cremastocheilus) castaneus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Cremastocheilus (Cremastocheilus) harrisii</i>
Dung or chafer beetle, no common name (Scarab)	<i>Cremastocheilus (Cremastocheilus) variolosus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Cyclocephala lurida</i>
Dung or chafer beetle, no common name (Scarab)	<i>Deltochilum gibbosum</i>
Dung or chafer beetle, no common name (Scarab)	<i>Dialytellus dialytoides</i>
Dung or chafer beetle, no common name (Scarab)	<i>Dialytellus humeralis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Dialytes striatulus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Dialytes truncatus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Dialytes ulkei</i>
Dung or chafer beetle, no common name (Scarab)	<i>Dichotomius carolinus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Dyscinetus morator</i>
Dung or chafer beetle, no common name (Scarab)	<i>Euphoria herbacea</i>
Dung or chafer beetle, no common name (Scarab)	<i>Euphoria sepulchralis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Eutheola humilis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Gnorimella maculosa</i>
Dung or chafer beetle, no common name (Scarab)	<i>Hornietus ventralis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Melanocanthon bispinatus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Neopsammodius interruptus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Odontopsammodius bidens</i>
Dung or chafer beetle, no common name (Scarab)	<i>Onthophagus hecate</i>
Dung or chafer beetle, no common name (Scarab)	<i>Onthophagus nuchicornis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Onthophagus oklahomensis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Onthophagus orpheus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Onthophagus orpheus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Onthophagus pennsylvanicus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Onthophagus striatulus</i>

Dung or chafer beetle, no common name (Scarab)	<i>Onthophagus subaeneus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Onthophagus taurus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Onthophagus tuberculifrons</i>
Dung or chafer beetle, no common name (Scarab)	<i>Osmoderma eremicola</i>
Dung or chafer beetle, no common name (Scarab)	<i>Osmoderma scabra</i>
Dung or chafer beetle, no common name (Scarab)	<i>Parastasia brevipes</i>
Dung or chafer beetle, no common name (Scarab)	<i>Phileurus valgus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Platyomus atlanticus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Platyomus notialis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Pleurophorus caesus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Psammодиус basalis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Psammодиус laevipennis</i>
Dung or chafer beetle, no common name (Scarab)	<i>Pseudataenius contortus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Pseudocanthon perplexus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Psilocnemis leucosticta</i>
Dung or chafer beetle, no common name (Scarab)	<i>Rhyssemus scaber</i>
Dung or chafer beetle, no common name (Scarab)	<i>Stephanuca areata</i>
Dung or chafer beetle, no common name (Scarab)	<i>Strigoderma arvicola</i>
Dung or chafer beetle, no common name (Scarab)	<i>Tomarus (Ligyrodes) relictus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Trichiotinus bibens</i>
Dung or chafer beetle, no common name (Scarab)	<i>Trichiotinus lunulatus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Trichiotinus piger</i>
Dung or chafer beetle, no common name (Scarab)	<i>Valgus canaliculatus</i>
Dung or chafer beetle, no common name (Scarab)	<i>Valgus seticollis</i>
Dung or chafer beetle, no common name (Scarab))	<i>Copris fricator</i>
Dung or chafer beetle, no common name (Scarab))	<i>Cremastocheilus (Cremastocheilus) canaliculatus</i>
Dung or chafer beetle, no common name (Scarab))	<i>Onthophagus concinnus</i>
Dusky sallfly	<i>Alloperla biserrata</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Bolboceras cornigerus</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Bolboceras darlingtoni</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Bolboceras liebecki</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Bolboceras thoracicornis</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Bolbocerosoma farctum</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Bolbocerosoma tumefactum</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Bradycinetulus ferrugineus</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Eucanthus impressus</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Eucanthus lazarus</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Eucanthus subtropicus</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Geotrupes (Anoplotrupes) hornii</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Geotrupes (Cnemotrupes) blackburnii</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Geotrupes (Cnemotrupes) egeriei</i>

Earth-boring dung beetle, no common name (Scarab)	<i>Geotrupes (Cnemotrupes) ulkei</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Geotrupes (Onychotrupes) semiopacus</i>
Earth-boring dung beetle, no common name (Scarab)	<i>Geotrupes (Onychotrupes) splendidus</i>
Eastern Hercules beetle	<i>Dynastes tityus</i>
Eastern saltmarsh mosquito	<i>Aedes sollicitans</i>
Eastern treehole mosquito	<i>Aedes triseriatus</i>
Eastern tumblebug	<i>Canthon pilularis</i>
Ebony jewelwing	<i>Calopteryx maculata</i>
Elegant spreadwing	<i>Lestes inaequalis</i>
Elusive clubtail	<i>Stylurus notatus</i>
Emerald spreadwing	<i>Lestes dryas</i>
Faded pennant	<i>Celithemis ornata</i>
Flat-horned ground beetle, no common name	<i>Helluomorphoides nigripennis</i>
Flightless tiger beetle	<i>Cicindela unipunctata</i>
Flower beetle	<i>Trichiotinus affinis</i>
Flower Scarab	<i>Trigonopeltastes delta</i>
Frosted whiteface	<i>Leucorrhinia frigida</i>
Gammon's stenelmis riffle beetle	<i>Stenelmis gammoni</i>
Garden cave beetle	<i>Pseudanophthalmus hortulanus</i>
Georgia Isonychia mayfly	<i>Isonychia georgiae</i>
Goldsmith beetle	<i>Cotalpa lanigera</i>
Green-striped darner	<i>Aeshna verticalis</i>
Ground beetle, no common name	<i>Cyclotrachelus incisus</i>
Ground beetle, no common name	<i>Dicaelus sculptilis</i>
Ground beetle, no common name	<i>Pentagonica picticornis</i>
Ground beetle, no common name	<i>Phloeoxena signata</i>
Ground beetle, no common name	<i>Pseudanophthalmus pusio</i>
Ground beetle, no common name	<i>Pseudanophthalmus seclusus</i>
Ground beetle, no common name	<i>Pseudanophthalmus sp. 10</i>
Ground beetle, no common name	<i>Pseudanophthalmus sp. 4</i>
Ground beetle, no common name	<i>Pseudanophthalmus sp. 5</i>
Ground beetle, no common name	<i>Pseudanophthalmus sp. 6</i>
Ground beetle, no common name	<i>Pseudanophthalmus sp. 7</i>
Ground beetle, no common name	<i>Pseudanophthalmus sp. 9</i>
Ground beetle, no common name	<i>Pseudaptinus lecontei</i>
Ground beetle, no common name	<i>Thalpius pygmaeus</i>
Ground beetle, no common name (Hubbardi group)	<i>Pseudanophthalmus sp. 8</i>
Ground beetle, no common name (Pusio group)	<i>Pseudanophthalmus sp. 11</i>
Hagen's bluet	<i>Enallagma hageni</i>
Harpoon clubtail	<i>Gomphus descriptus</i>
Hercules club stink bug	<i>Elasmotherus atricornis</i>



Highlands springfly	<i>Yugus arinus</i>
Hoffman's cave beetle	<i>Pseudanophthalmus hoffmani</i>
Hoffman's Isonychia mayfly	<i>Isonychia hoffmani</i>
Holsinger's cave beetle	<i>Pseudanophthalmus holsingeri</i>
Holston sallfly	<i>Sweltsa holstonensis</i>
Horned passalus	<i>Odontotaenius disjunctus</i>
Hubbard's cave beetle	<i>Pseudanophthalmus hubbardi</i>
Hubricht's cave beetle	<i>Pseudanophthalmus hubrichti</i>
Hudsonian whiteface	<i>Leucorrhinia hudsonica</i>
Illinois snowfly	<i>Allocapnia illinoensis</i>
Immodest spur-throat grasshopper	<i>Melanoplus impudicus</i>
Jane's meadowhawk	<i>Sympetrum janeae</i>
Jefferson's short-nosed scorpionfly	<i>Brachypanorpa jeffersoni</i>
Johnson's pronggill mayfly	<i>Leptophlebia johnsoni</i>
Karl's Pit cave beetle	<i>Pseudanophthalmus sp. 14</i>
Lamellicorn beetle, no common name (Scarab)	<i>Strigoderma pygmaea</i>
Lance-tipped darner	<i>Aeshna constricta</i>
Laura's clubtail	<i>Stylurus laurae</i>
Leaf beetle, no common name	<i>Diabrotica cristata</i>
Leaf beetle, no common name	<i>Pseudolampsis guttata</i>
Leaf beetle, no common name	<i>Calligrapha pnirsa</i>
Lee County cave beetle	<i>Pseudanophthalmus hirsutus</i>
Lesser dung beetle, no common name	<i>Aphodius badipes</i>
Lesser dung beetle, no common name	<i>Aphodius bicolor</i>
Lesser dung beetle, no common name	<i>Aphodius campestris</i>
Lesser dung beetle, no common name	<i>Aphodius crassulus</i>
Lesser dung beetle, no common name	<i>Aphodius distinctus</i>
Lesser dung beetle, no common name	<i>Aphodius erraticus</i>
Lesser dung beetle, no common name	<i>Aphodius femoralis</i>
Lesser dung beetle, no common name	<i>Aphodius fimetarius</i>
Lesser dung beetle, no common name	<i>Aphodius fossor</i>
Lesser dung beetle, no common name	<i>Aphodius granarius</i>
Lesser dung beetle, no common name	<i>Aphodius haemorrhoidalis</i>
Lesser dung beetle, no common name	<i>Aphodius lentus</i>
Lesser dung beetle, no common name	<i>Aphodius leopardus</i>
Lesser dung beetle, no common name	<i>Aphodius lividus</i>
Lesser dung beetle, no common name	<i>Aphodius lutulentus</i>
Lesser dung beetle, no common name	<i>Aphodius phalerioides</i>
Lesser dung beetle, no common name	<i>Aphodius prodromus</i>
Lesser dung beetle, no common name	<i>Aphodius pseudolividus</i>
Lesser dung beetle, no common name	<i>Aphodius robinsoni</i>

Lesser dung beetle, no common name	<i>Aphodius rubeolus</i>
Lesser dung beetle, no common name	<i>Aphodius rubripennis</i>
Lesser dung beetle, no common name	<i>Aphodius rufipes</i>
Lesser dung beetle, no common name	<i>Aphodius rusicola</i>
Lesser dung beetle, no common name	<i>Aphodius serval</i>
Lesser dung beetle, no common name	<i>Aphodius stercorosus</i>
Lesser dung beetle, no common name	<i>Aphodius stupidus</i>
Lesser dung beetle, no common name	<i>Aphodius sylvanicus</i>
Lesser dung beetle, no common name	<i>Aphodius tenellus</i>
Lesser dung beetle, no common name	<i>Aphodius terminalis</i>
Lesser dung beetle, no common name	<i>Aphodius vittatus</i>
Lilypad clubtail	<i>Arigomphus furcifer</i>
Limnephilid caddisfly, no common name	<i>Anabolia apora</i>
Limnephilid caddisfly, no common name	<i>Nemotaulius hostilis</i>
Little Kennedy Cave beetle	<i>Pseudanophthalmus cordicollis</i>
Long-headed cave beetle	<i>Pseudanophthalmus longiceps</i>
Long-horned beetle, no common name	<i>Anthophylax hoffmani</i>
Long-horned beetle, no common name	<i>Urographis triangulifer</i>
Maiden Spring cave beetle	<i>Psuedanophthalmus virginicus</i>
Maine snaketail	<i>Ophiogomphus mainensis</i>
Manassas stonefly	<i>Acroneuria flinti</i>
Mantled baskettail	<i>Epitheca semiaquea</i>
Marsh bluet	<i>Enallagma ebrium</i>
Maureen's hydraenan minute beetle beetle	<i>Hydraena maureenae</i>
May beetle or June bug, no common name	<i>Dichelonyx albicollis</i>
May beetle or June bug, no common name	<i>Dichelonyx diluta</i>
May beetle or June bug, no common name	<i>Dichelonyx fuscula</i>
May beetle or June bug, no common name	<i>Dichelonyx linearis</i>
May beetle or June bug, no common name	<i>Dichelonyx subvittata</i>
May beetle or June bug, no common name	<i>Diplotaxis atlantis</i>
May beetle or June bug, no common name	<i>Diplotaxis bidentata</i>
May beetle or June bug, no common name	<i>Diplotaxis frondicola</i>
May beetle or June bug, no common name	<i>Diplotaxis harperi</i>
May beetle or June bug, no common name	<i>Diplotaxis liberta</i>
May beetle or June bug, no common name	<i>Diplotaxis punctatorugosa</i>
May beetle or June bug, no common name	<i>Diplotaxis sordida</i>
May beetle or June bug, no common name	<i>Diplotaxis subcostata</i>
May beetle or June bug, no common name	<i>Hoplia equina</i>
May beetle or June bug, no common name	<i>Hoplia modesta</i>
May beetle or June bug, no common name	<i>Hoplia trifasciata</i>

May beetle or June bug, no common name	<i>Hoplia trivialis</i>
May beetle or June bug, no common name	<i>Macroductylus angustata</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) aemula</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) anxia</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) apicata</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) balia</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) barda</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) crenulata</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) debilis</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) diffinis</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) dispar</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) drakii</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) ephilida</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) forsteri</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) foxii</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) fraterna</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) fusca</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) futilis</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) georgiana</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) glaberrima</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) gracilis</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) hirsuta</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) hirticula</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) hornii</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) ilicis</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) inversa</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) knochii</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) latifrons</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) luctuosa</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) marginalis</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) micans</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) paternoii</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) postrema</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) profunda</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) prununculina</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) quercus</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) rugosa</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) subpruinosa</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) subtonsa</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) sylvatica</i>
May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) tristis</i>

May beetle or June bug, no common name	<i>Phyllophaga (Phyllophaga) vilifrons</i>
May beetle or June bug, no common name	<i>Phyllophagas (Phyllophagas) implicita</i>
May beetle or June bug, no common name	<i>Polyphylla comes</i>
May beetle or June bug, no common name	<i>Polyphylla occidentalis</i>
May beetle or June bug, no common name	<i>Polyphylla variolosa</i>
May beetle or June bug, no common name	<i>Serica atricapilla</i>
May beetle or June bug, no common name	<i>Serica blatchleyi</i>
May beetle or June bug, no common name	<i>Serica carolina</i>
May beetle or June bug, no common name	<i>Serica georgiana</i>
May beetle or June bug, no common name	<i>Serica imitans</i>
May beetle or June bug, no common name	<i>Serica intermixta</i>
May beetle or June bug, no common name	<i>Serica iricolor</i>
May beetle or June bug, no common name	<i>Serica lecontei</i>
May beetle or June bug, no common name	<i>Serica loxia</i>
May beetle or June bug, no common name	<i>Serica mystaca</i>
May beetle or June bug, no common name	<i>Serica opposita</i>
May beetle or June bug, no common name	<i>Serica parallela</i>
May beetle or June bug, no common name	<i>Serica sericea</i>
May beetle or June bug, no common name	<i>Serica vespertina</i>
Mayfly, no common name	<i>Baetisca rubescens</i>
Mayfly, no common name	<i>Ephemerella inconstans</i>
Mayfly, no common name	<i>Habrophlebiodes celeteria</i>
Mayfly, no common name	<i>Isonychia arida</i>
Mayfly, no common name	<i>Isonychia serrata</i>
Mayfly, no common name	<i>Isonychia tusculanensis</i>
Mayfly, no common name	<i>Paraleptophlebia assimilis</i>
Mayfly, no common name	<i>Paraleptophlebia jeanae</i>
Mayfly, no common name	<i>Rhithrogena anomala</i>
McMullan Cave beetle	<i>Pseudanophthalmus sp. 13</i>
Midland clubtail	<i>Gomphus fraternus</i>
Minute moss beetle	<i>Hydraena appalachicola</i>
Mirid bug, no common name	<i>Bothynotus johnstoni</i>
Mississippi turtle bug	<i>Allopodops mississippiensis</i>
Mitchell needlefly	<i>Leuctra mitchellensis</i>
Montane needlefly	<i>Leuctra monticola</i>
Mountain river cruiser	<i>Macromia margarita</i>
Moustached clubtail	<i>Gomphus adelphus (= G. brevis)</i>
Mud-dwelling cave beetle	<i>Pseudanophthalmus limicola</i>
Natural Bridge cave beetle	<i>Pseudanophthalmus pontis</i>
Nelson's cave beetle	<i>Pseudanophthalmus nelsoni</i>
Neotropical rice bug	<i>Stenocoris tipuloides</i>

New River Valley cave beetle	<i>Pseudanophthalmus egberti</i>
Newfound willowfly	<i>Strophopteryx limata</i>
Northeastern beach tiger beetle	<i>Cicindela dorsalis dorsalis</i>
Northern bluet	<i>Enallagma cyathigerum</i>
Northern bush katydid	<i>Scudderia septentrionalis</i>
Northern house mosquito	<i>Culex pipiens pipiens</i>
Northern Masked Chafer	<i>Cyclocephala borealis</i>
Notched forestfly	<i>Ostrocerca complexa</i>
Orange-bellied tiger beetle	<i>Cicindela abdominalis</i>
Oriental beetle	<i>Anomala orientalis</i>
Overlooked cave beetle	<i>Pseudanophthalmus practermissus</i>
Ox beetle	<i>Strategus antaeus</i>
Petrunkevitch's cave beetle	<i>Pseudanophthalmus petrunkevitchi</i>
Philopotamid caddisfly, no common name	<i>Wormaldia thyria</i>
Phlox whitefly	<i>Trialeurodes phlogis</i>
Pine barrens plant bug	<i>Plagiognathus repetitus</i>
Pine chafer	<i>Anomala oblivia</i>
Pitcher plant fly	<i>Fletcherimyia fletcheri</i>
Pitcher plant midge	<i>Metriocnemus knabi</i>
Predaceous diving beetle, no common name	<i>Hoperius planatus</i>
Pselaphid beetle, no common name	<i>Rybaxis sp. 1</i>
Purple tiger beetle	<i>Cicindela purpurea</i>
Pygmy snaketail	<i>Ophiogomphus howei</i>
Red-waisted whiteface	<i>Leucorrhinia proxima</i>
Regal darner	<i>Coryphaeschna ingens</i>
Rhinoceros beetle	<i>Xyloryctes jamaicensis</i>
Rhyacophilid caddisfly, no common name	<i>Rhyacophila tricornuta</i>
Riffle snaketail	<i>Ophiogomphus carolus</i>
River jewelwing	<i>Calopteryx aequabilis</i>
Riverine clubtail	<i>Stylurus amnicola</i>
Rock Island springfly	<i>Isogenoides varians</i>
Rose Chafer	<i>Macroductylus subspinosa</i>
Rotund cave beetle	<i>Pseudanophthalmus rotundatus</i>
Rove beetle, no common name	<i>Atheta annexa</i>
Rove beetle, no common name	<i>Atheta troglaphila</i>
Russet-tipped clubtail	<i>Stylurus plagiatus</i>
Saint Paul cave beetle	<i>Pseudanophthalmus sanctipauli</i>
Scarab beetle, no common name	<i>Germarostes (Germarostes) aphodioides</i>
Scarab beetle, no common name	<i>Germarostes (Germarostes) globosus</i>
Scarab beetle, no common name	<i>Lichnanthe lupina</i>
Scarab beetle, no common name	<i>Lichnanthe vulpina</i>

Scarab beetle, no common name	<i>Ochodaeus musculus</i>
Schaum's Blue Ridge ground beetle	<i>Sphaeroderus schaufi ssp.</i>
Schaum's longhorn beetle	<i>Stenocorus schaufi</i>
Schwarz' diving beetle	<i>Laccophilus schwarzi</i>
Seashore plant bug	<i>Pycnoderiella virginiana</i>
Sedge sprite	<i>Nehalennia irene</i>
Seed bug, no common name	<i>Botocudo modestus</i>
Seepage dancer	<i>Argia bipunctulata</i>
Septima's clubtail	<i>Gomphus septima</i>
Shadow darner	<i>Aeshna umbrosa</i>
Shield bug, no common name	<i>Acantholomidea denticulata</i>
Shield bug, no common name	<i>Eurygaster alternata</i>
Shield bug, no common name	<i>Galgupha denudata</i>
Silken cave beetle	<i>Pseudanophthalmus sericus</i>
Sixbanded longhorn beetle	<i>Dryobius sexnotatus</i>
Skin beetle (Scarab)	<i>Omorgus asper</i>
Skin beetle (Scarab)	<i>Omorgus scabrosus</i>
Skin beetle (Scarab)	<i>Omorgus suberosus</i>
Skin beetle (Scarab)	<i>Omorgus tytus</i>
Skin beetle (Scarab)	<i>Trox aequalis</i>
Skin beetle (Scarab)	<i>Trox capillaris</i>
Skin beetle (Scarab)	<i>Trox foveicollis</i>
Skin beetle (Scarab)	<i>Trox hamatus</i>
Skin beetle (Scarab)	<i>Trox scaber</i>
Skin beetle (Scarab)	<i>Trox sordidus</i>
Skin beetle (Scarab)	<i>Trox spinulosus</i>
Skin beetle (Scarab)	<i>Trox terrestris</i>
Skin beetle (Scarab)	<i>Trox tuberculatus</i>
Skin beetle (Scarab)	<i>Trox unistriatus</i>
Skin beetle (Scarab)	<i>Trox variolatus</i>
Skin beetle (Scarab))	<i>Omorgus monachus</i>
Ski-tailed emerald	<i>Somatochlora elongata</i>
Slender spreadwing	<i>Lestes rectangularis</i>
Small black dung beetle	<i>Copris minutus</i>
Smokies snowfly	<i>Allocapnia fumosa</i>
Smoky willowfly	<i>Bolotoperla rossi</i>
Snow scorpionfly, no common name	<i>Boreus nivoriundus</i>
South Branch Valley cave beetle	<i>Pseudanophthalmus potomaca potomaca</i>
Southeastern beach tiger beetle	<i>Cicindela dorsalis media</i>
Southeastern myotis bat fly	<i>Basilia boardmani</i>
Southeastern roachfly	<i>Tallaperla cornelia</i>

Southern pitcher plant mosquito	<i>Wyeomyia haynei</i>
Southern springfly	<i>Cultus decisis isolatus</i>
Southern water scorpion	<i>Ranatra australis</i>
Sparkling jewelwing	<i>Calopteryx dimidiata</i>
Spectral tiger beetle	<i>Cicindela lepida</i>
Spiny salmonfly	<i>Pteronarcys comstocki</i>
Splendid dung beetle	<i>Phanaeus (Phanaeus) vindex</i>
Splendid tiger beetle	<i>Cicindela splendida</i>
Spotted cave beetle	<i>Pseudanophthalmus punctatus</i>
Spotted grape beetle	<i>Pelidnota punctata</i>
Spotted spreadwing	<i>Lestes congener</i>
Spur-throat grasshopper, no common name	<i>Melanoplus celatus</i>
Spur-throat grasshopper, no common name	<i>Melanoplus devius</i>
Spur-throat grasshopper, no common name	<i>Melanoplus pachycercus</i>
Spur-throat grasshopper, no common name	<i>Melanoplus sp. 55</i>
Spur-throat grasshopper, no common name	<i>Melanoplus sp. 59</i>
Stag beetle, no common name	<i>Ceruchus piceus</i>
Stag beetle, no common name	<i>Dorcus brevis</i>
Stag beetle, no common name	<i>Dorcus parallelus</i>
Stag beetle, no common name	<i>Lucanus capreolus</i>
Stag beetle, no common name	<i>Nicagus obscurus</i>
Stag beetle, no common name (SCARAB)	<i>Platycerus virescens</i>
Straley's Cave beetle	<i>Pseudanophthalmus quadratus</i>
Stygian shadowdragon	<i>Neurocordulia yamaskanensis</i>
Superb jewelwing	<i>Calopteryx amata</i>
Swamp forestfly	<i>Prostoia hallasi</i>
Swamp spreadwing	<i>Lestes vigilax</i>
Swannanoa sallfly	<i>Alloperla nanina</i>
Tarter's Ameletus mayfly	<i>Ameletus tarteri</i>
Teays stonefly	<i>Perlesta teaysia</i>
Tennessee sallfly	<i>Alloperla neglecta</i>
Thin-neck cave beetle	<i>Pseudanophthalmus parvicollis</i>
Thomas' cave beetle	<i>Pseudanophthalmus thomasi</i>
Tiger beetle, no common name	<i>Cicindela ancocisconensis</i>
Tiger beetle, no common name	<i>Cicindela formosa generosa</i>
Tiger beetle, no common name	<i>Cicindela gratiosa</i>
Tiger beetle, no common name	<i>Cicindela limbalis</i>
Tiger beetle, no common name	<i>Cicindela trifasciata</i>
Triceratops beetle	<i>Phileurus truncatus</i>
Tufted sallfly	<i>Alloperla banksi</i>
Turtle bug, no common name	<i>Oncozygia clavicornis</i>

Two-striped forceptail	<i>Aphylla williamsoni</i>
Variegated meadowhawk	<i>Sympetrum corruptum</i>
Vernal sallfly	<i>Alloperla ideii</i>
Violet dancer	<i>Argia fumipennis violacea</i>
Virginia sallfly	<i>Sweltsa voshelli</i>
Virginia springfly	<i>Diploperla morgani</i>
Water scavenger beetle, no common name	<i>Hydrobiomorpha casta</i>
Water scorpion, no common name	<i>Nepa apiculata</i>
Water strider, no common name	<i>Limnoporus dissortis</i>
White corporal skimmer	<i>Ladona exusta</i>
White sand-river mayfly	<i>Pseudiron centralis</i>
White-faced meadowhawk	<i>Sympetrum obtrusum</i>
Widecollar stonefly	<i>Paragnetina ichusa</i>
Williamson's emerald	<i>Somatochlora williamsoni</i>
<b>DIPLURANS AND SPRINGTAILS:</b>	
Barr's cave springtail	<i>Sinella barri</i>
Cave dipluran, no common name	<i>Litocampa sp. 3</i>
Cave dipluran, no common name	<i>Litocampa sp. 4</i>
Cave dipluran, no common name	<i>Litocampa sp. 5</i>
Cave dipluran, no common name (Salamander cave)	<i>Litocampa sp. 1</i>
Cave Obligate springtail, no common name	<i>Pseudosinella hirsuta</i>
Cave springtail, no common name	<i>Oncopodura hubbardi</i>
Cave springtail, no common name	<i>Arrhopalites caedus</i>
Cave springtail, no common name	<i>Arrhopalites carolynae</i>
Cave springtail, no common name	<i>Arrhopalites clarus</i>
Cave springtail, no common name	<i>Arrhopalites commorus</i>
Cave springtail, no common name	<i>Arrhopalites lacuna</i>
Cave springtail, no common name	<i>Arrhopalites marshalli</i>
Cave springtail, no common name	<i>Arrhopalites pavo</i>
Cave springtail, no common name	<i>Arrhopalites sacer</i>
Cave springtail, no common name	<i>Arrhopalites silvus</i>
Cave springtail, no common name	<i>Pseudosinella bona</i>
Cave springtail, no common name	<i>Pseudosinella erewhon</i>
Cave springtail, no common name	<i>Pseudosinella extra</i>
Cave springtail, no common name	<i>Pseudosinella gisini</i>
Cave springtail, no common name	<i>Pseudosinella granda</i>
Cave springtail, no common name	<i>Pseudosinella orba</i>
Cave springtail, no common name	<i>Pseudosinella sp. 2</i>
Cave springtail, no common name	<i>Pseudosinella sp. 3</i>



Cave springtail, no common name	<i>Pseudosinella sp. 4</i>
Cave springtail, no common name	<i>Schaefferia hubbardi</i>
Cave springtail, no common name	<i>Typhlogastrura valentini</i>
Cooke's cave dipluran	<i>Litocampa cookei</i>
Hoffman's cave springtail	<i>Sinella hoffmani</i>
Puckett's cave dipluran	<i>Litocampa pucketti</i>
Springtail, no common name	<i>Arrhopalites benitus</i>
<b><u>ARACHNIDS:</u></b>	
Amaurobiid spider, no common name	<i>Amaurobius borealis</i>
American dog tick	<i>Dermacentor variabilis</i>
Atlantic purse-web spider	<i>Sphodros atlanticus</i>
Black and yellow spider	<i>Argiope aurantia</i>
Brown dog tick	<i>Rhipicephalus sanguineus</i>
Carolina scorpion	<i>Vaejovis carolinianus</i>
Cave mite, no common name	<i>Foveacheles paralleloseta</i>
Cave mite, no common name	<i>Rhagidia varia</i>
Cave pseudoscorpion, no common name	<i>Apochthonius coecus</i>
Cave pseudoscorpion, no common name	<i>Apochthonius holsingeri</i>
Cave pseudoscorpion, no common name	<i>Chitrella sp. 1</i>
Cave pseudoscorpion, no common name	<i>Chitrella superba</i>
Cave pseudoscorpion, no common name	<i>Kleptochthonius anophthalmus</i>
Cave pseudoscorpion, no common name	<i>Kleptochthonius binoculatus</i>
Cave pseudoscorpion, no common name	<i>Kleptochthonius gertschi</i>
Cave pseudoscorpion, no common name	<i>Kleptochthonius lutzi</i>
Cave pseudoscorpion, no common name	<i>Kleptochthonius proximisetus</i>
Cave pseudoscorpion, no common name	<i>Kleptochthonius regulus</i>
Cave pseudoscorpion, no common name	<i>Kleptochthonius similis</i>
Cave pseudoscorpion, no common name	<i>Kleptochthonius sp. 1</i>
Cave pseudoscorpion, no common name	<i>Microcreagris valentinei</i>
Cave pseudoscorpion, no common name	<i>Mundochthonius holsingeri</i>
Cave spider, no common name	<i>Islandiana muma</i>
Cave spider, no common name	<i>Nesticus mimus</i>
Cave spider, no common name	<i>Nesticus paynei</i>
Cave spider, no common name	<i>Nesticus tennesseensis</i>
Clover mite, no common name	<i>Bryobia praetiosa</i>
Coyle's purse-web spider	<i>Sphodros coylei</i>
Crab spider, no common name	<i>Xysticus triguttatus</i>
Crablike spiny orb weaver	<i>Gasteracantha cancriformis</i>
Emerton's crab spider	<i>Xysticus emertoni</i>

Funnel-web spider, no common name	<i>Agelenopsis pennsylvanica</i>
Funnel-web spider, no common name	<i>Barronopsis jeffersi</i>
Gertsch's lampshade-web spider	<i>Hypochilus gertschi</i>
Gnaphosid spider, no common name	<i>Drassyllus louisianus</i>
Gnaphosid spider, no common name	<i>Gnaphosa fontinalis</i>
Harvestman, no common name	<i>Erebomaster acanthina</i>
Harvestman, no common name	<i>Erebomaster sp. A</i>
Holsinger's cave spider	<i>Nesticus holsingeri</i>
Jumping spider, no common name	<i>Metaphidippus protervus</i>
Lone star tick	<i>Amblyomma americanum</i>
Mite, no common name	<i>Androlaelaps sp. A</i>
Mite, no common name	<i>Eugamasus sp. A</i>
Mite, no common name	<i>Hupoaspis sp. A</i>
Mite, no common name	<i>Pergamasus sp. A</i>
Mite, no common name	<i>Poecilophysis extraneostella</i>
Mite, no common name	<i>Poecilophysis weyerensis</i>
Mite, no common name	<i>Robustocheles hilli</i>
Nursery-web spider, no common name	<i>Pisaurina dubia</i>
Pocock's lampshade-web spider	<i>Hypochilus pococki</i>
Pseudoscorpion, no common name	<i>Apochthonius sp. A</i>
Pseudoscorpion, no common name	<i>Chitrella cavicola</i>
Pseudoscorpion, no common name	<i>Hesperoernes mirabilis</i>
Pseudoscorpion, no common name	<i>Hesperoernes sp. A</i>
Pseudoscorpion, no common name	<i>Kleptochthonius sp. B</i>
Rabbit tick	<i>Haemaphysalis leporispalustris</i>
Red-legged purse-web spider	<i>Sphodros rufipes</i>
Robust trapdoor spider	<i>Antrodiaetus robustus</i>
Shenandoah pseudoscorpion	<i>Kleptochthonius polychaetus</i>
Southeastern wandering spider	<i>Anahita punctulata</i>
Southern black widow spider	<i>Latrodectus mactens</i>
Spider, no common name	<i>Achaearanea tepidariorum</i>
Spider, no common name	<i>Anthrobia monmouthia</i>
Spider, no common name	<i>Bathyphantes weyeri</i>
Spider, no common name	<i>Calymmaria cavicola</i>
Spider, no common name	<i>Centromerus latidens</i>
Spider, no common name	<i>Cicurina pallida</i>
Spider, no common name	<i>Eidmannella pallida</i>
Spider, no common name	<i>Liocranoides sp. A</i>
Spider, no common name	<i>Liocranoides unicolor</i>
Spider, no common name	<i>Nesticus carteri</i>
Spider, no common name	<i>Nesticus sp. A</i>

Spider, no common name	<i>Phanetta subterranea</i>
Spider, no common name	<i>Porrhomma cavernicolum</i>
Thorell's lampshade-web spider	<i>Hypochilus thorelli</i>
Tick, no common name	<i>Ixodes cookei</i>
Two-clawed hunting spider, no common name	<i>Castianeira trilineata</i>
Two-clawed hunting spider, no common name	<i>Clubiona spiralis</i>
Winter tick	<i>Dermacentor albipictus</i>
Wolf spider, no common name	<i>Eycosa avida</i>
Wolf spider, no common name	<i>Lycosa lenta</i>
<b><u>PLANARIANS:</u></b>	
Bigger's groundwater planarian	<i>Spallopiana subtilis</i>
Chandler's planarian	<i>Sphallopiana chandleri</i>
Flatworm, no common name	<i>Geocentrophora cavernicola</i>
Flatworm, no common name	<i>Geocentrophora spp. A</i>
Groundwater planarian, no common name	<i>Sphallopiana hypogea</i>
Groundwater planarian, no common name	<i>Procotyla typhlops</i>
Holsinger's groundwater planarian	<i>Spallopiana holsingeri</i>
Planarian, no common name	<i>Phagocata gracilis</i>
Planarian, no common name	<i>Phagocata morgani</i>
Planarian, no common name	<i>Sphallopiana percoeca</i>
Planarian, no common name	<i>Sphallopiana spp. A</i>
Powell Valley planarian	<i>Sphallopiana consimilis</i>
Rockbridge County cave planarian	<i>Sphallopiana virginiana</i>
<b><u>ANNELIDS:</u></b>	
Branchiobdelid worm, no common name	<i>Ankyrodrius legacus</i>
Branchiobdelid worm, no common name	<i>Ankyrodrius legacus</i>
Branchiobdelid worm, no common name	<i>Cambarincola fallax</i>
Cave lumbriculid worm, no common name	<i>Stylodrilus beattiei</i>
Cave lumbriculid worm, no common name	<i>Stylodrilus beattiei</i>
Cave obligate worm, no common name	<i>Cambarincola fallax</i>
Oligochaete worm, no common name	<i>Bdellodrilus illuminatus</i>
Oligochaete worm, no common name	<i>Allolobophora chlorotica</i>
Oligochaete worm, no common name	<i>Allolobophora turgida</i>
Oligochaete worm, no common name	<i>Bimastos tumidus</i>
Oligochaete worm, no common name	<i>Cambarincola philadephicus</i>
Oligochaete worm, no common name	<i>Cambarincola spp. A</i>
Oligochaete worm, no common name	<i>Dendrobaena rubida</i>
Oligochaete worm, no common name	<i>Eisenia rosea</i>
Oligochaete worm, no common name	<i>Eiseniella tetraedra</i>

Oligochaete worm, no common name	<i>Lumbriculis spp. A</i>
Oligochaete worm, no common name	<i>Octolasion lacteum</i>
Oligochaete worm, no common name	<i>Oedipodrilus macbaini</i>
Oligochaete worm, no common name	<i>Spelaedrillus multiporus</i>
Oligochaete worm, no common name	<i>Xironodrilus formosus</i>
Oligochaete worm, no common name	<i>Xironogiton instabilis</i>
Tubificid worm, no common name	<i>Enchytraeid spp. A</i>
<b>MARINE MAMMALS:</b>	
Antillean beaked whale	<i>Mesoplodon europaeus</i>
Atlantic bottlenose	<i>Tursiops truncatus</i>
Atlantic pilot whale	<i>Globicephala melaena</i>
Blue whale	<i>Balaenoptera musculus</i>
Bryde's whale	<i>Balaenoptera edeni</i>
California sea lion	<i>Zalophus californianus</i>
Dense-beaked whale	<i>Mesoplodon densirostris</i>
Dwarf sperm whale	<i>Kogia simus</i>
False killer whale	<i>Pseudorca crassidens</i>
Finback whale	<i>Balaenoptera physalus</i>
Goose-beaked whale	<i>Ziphius cavirostris</i>
Grampus	<i>Grampus griseus</i>
Harbor porpoise	<i>Phocoena phocoena</i>
Harbor seal	<i>Phoca vitulina vitulina</i>
Humpback whale	<i>Megaptera novaeangliae</i>
Killer whale	<i>Orcinus orca</i>
Minke whale	<i>Balaenoptera acutorostrada</i>
Pygmy sperm whale	<i>Kogia breviceps</i>
Right whale	<i>Balaena glacialis (incl. australis)</i>
Rough-toothed dolphin	<i>Steno bredanensis</i>
Saddleback dolphin	<i>Delphinus delphis</i>
Sei whale	<i>Balaenoptera borealis</i>
Short-finned pilot whale	<i>Globicephala macrorhynchus</i>
Sperm whale	<i>Physeter catodon (= macrocephalus)</i>
Spinner dolphin	<i>Stenella longirostris</i>
Spotted dolphin	<i>Stenella plagiodon</i>
Striped dolphin	<i>Stenella caeruleoalba</i>
True's beaked whale	<i>Mesoplodon mirus</i>
West Indian manatee	<i>Trichechus manatus</i>
White-sided dolphin	<i>Lagenorhynchus acutus</i>

**DEPARTMENT OF GAME AND INLAND FISHERIES**

**BOARD MEETING AGENDA ITEM**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Law Enforcement                      **PRESENTER:** Tom Guess

**DATE SUBMITTED:** August 6, 2012              **SUBMITTED BY:** Tom Guess

**SUBJECT:**

Boating Regulations Final Recommendations

**BACKGROUND:**

The August 14, 2012 Board meeting has been designated as the appropriate time for submission of final recommendation concerning boating regulations. Boating safety, law enforcement, and boat titling and registration staff have analyzed data and considered constituent input received during the last 2 years and from the May 1 through August 4, 2012 public comment period. Staff has compiled its final recommendation to address each issue. Staff will summarize this package in a presentation to the Board on August 14, 2012.

**RECOMMENDATION:**

The board will take action on the staff's final recommendations and vote to finalize these recommendations to become effective on January 1, 2013.

**VIRGINIA DEPARTMENT OF GAME AND INLAND  
FISHERIES**

**LAW ENFORCEMENT DIVISION**

**BOATING REGULATION**

**STAFF RECOMMENDATIONS**

**2012**



**4VAC15-370-40**

**Vessels prohibited within certain areas below John H. Kerr Dam and Leesville Dam**

**Summary:**

Appalachian Power Company is proposing to build a hand-launch boat facility on the north side of Leesville Dam tailrace, and a boat launch ramp on the south side. Both of these sites are within 840 feet of the dam which is currently listed as restricted in the regulation. The 840ft restriction would need to be amended to 600ft to allow for the installation of these two facilities.

**Proposed language of amendment:**

**4VAC15-370-40: Vessels prohibited within certain areas below John H. Kerr Dam and Leesville Dam**

It shall be unlawful to operate or anchor any vessel within 600 feet below the John H. Kerr Dam or within ~~840~~ 600 feet below the Leesville Dam.

**Date to become effective:**

January 1, 2013

**4VAC15-390-50**

**Right of way**

**Summary:**

Remove the words, *right of way* as the regulation title and replace with *responsibility between vessels* in order to be more consistent with the Navigation Rules of the Road.

The U. S. Coast Guard change the wording in the Navigation Rules (Inland – International) COMDINST 16672.2D several years ago in regards to vessels having right of way. The wording, *responsibility between vessels* replaced *right of way* and is consistent with the Navigation Rules (Inland and International).

**Recommended language of amendment:**

**4VAC15-390-50: ~~Right of way~~ *Responsibility between vessels***

A. The operator of a motorboat underway shall keep his vessel out of the way of:

1. A vessel not under command;
2. A vessel restricted in its ability to maneuver;
3. A vessel engaged in fishing with nets or other commercial fishing apparatus that restricts maneuverability; and
4. A sailing vessel.

B. The operator of a sailing vessel underway shall keep his vessel out of the way of:

1. A vessel not under command;
2. A vessel restricted in its ability to maneuver; and
3. A vessel engaged in fishing with nets or other commercial fishing apparatus that restricts maneuverability.

C. The operator of a vessel engaged in fishing with nets or other commercial fishing apparatus that restricts maneuverability when underway shall, so far as possible, keep his vessel out of the way of:

1. A vessel not under command; and
2. A vessel restricted in its ability to maneuver.

D. The pilot of a seaplane on the water shall, in general, keep his seaplane well clear of all vessels and avoid impeding their navigation. In circumstances, however, where risk of collision exists, he shall comply with the ~~right-of-way~~ *responsibility between vessels* provisions above.

E. When two sailing vessels are approaching one another, so as to involve risk of collision, the operator of one of them shall keep out of the way of the other as follows:

1. When each has the wind on a different side, the vessel that has the wind on the left side shall keep out of the way of the other;
2. When both have the wind on the same side, the vessel that is to windward (upwind) shall keep out of the way of the vessel that is to leeward (downwind); and
3. If a vessel with the wind on the left side sees a vessel to windward (upwind) and cannot determine with certainty whether the other vessel has the wind on the left or on the right side, it shall keep out of the way of the other.



For the purpose of this section, the windward (upwind) side shall be deemed to be the side opposite to that on which the mainsail is carried or, in the case of a square-rigged vessel, the side opposite to that on which the largest fore-and-aft sail is carried.

**Date to become effective:**

January 1, 2013

**4VAC15-400-20**

**Immediate notification of reportable accident**

**Summary**

Change the wording in this regulation: from a member of the department's law enforcement (*game warden*), to a member of the department's law enforcement *division*.

There is a high likelihood that the boating public may not initially speak to a sworn officer immediately following a boating accident, but rather a member of the law enforcement division: dispatch, region office, or the boating safety section within the law enforcement division none of which are sworn officers.

**Recommended language of amendment:**

**4VAC15-400-20: Immediate notification of reportable accident.**

When an accident occurs that requires a written report in accordance with [4VAC15-400-30](#), the operator shall, without delay, by the quickest means available, notify the department in Richmond, Virginia, or the most immediately available member of the department's law enforcement (~~game warden~~) of:

1. The date, time, and exact location of the occurrence;
2. The major details of the accident including the name of each person who died or disappeared;
3. The number and name of the vessel; and
4. The names and addresses of the owner and operator.

When the operator of a vessel cannot give the notice required by the foregoing, each person, on board the vessel shall notify the department or a member of its law-enforcement force, or determine that the notice has been given.

**Date to become effective:**

January 1, 2013

#### **4VAC15-410-40**

### **Provisions for compliance and minimum standards for boating safety education course competency**

#### **Summary**

A house bill was going to be introduced last year to address the allowance of registered commercial fishermen to meet the requirement whether their license was current or not. As a matter of internal practice the Department started issuing Lifetime Boater's Cards to commercial fisherman who held or previously held a commercial fisherman's license.

Address the change regarding commercial fisherman in the regulation so that it won't need to be addressed as a legislative issue.

#### **Recommended language of amendment**

### **4VAC15-410-40: Provisions for compliance and minimum standards for boating safety education course competency**

A. A person shall be considered in compliance with the requirements for boating safety education if he meets one or more of the following provisions pursuant to § [29.1-735.2](#) B 1 through 9 of the Code of Virginia:

1. Completes and passes a boating safety education course;
2. Passes an equivalency exam;
3. Possesses a valid license to operate a vessel issued to maritime personnel by the United States Coast Guard or a marine certificate issued by the Canadian government or possesses a Canadian Pleasure Craft Operator's Card. For the purposes of this subsection a license is considered valid regardless of whether the license is current;
4. Possesses a temporary operator's certificate;

5. Possesses a rental or lease agreement from a motorboat or personal watercraft rental or leasing business that lists the person as the authorized operator of the motorboat;
6. Operates the motorboat under onboard direct supervision of a person who meets the requirements of this section;
7. Is a nonresident temporarily using the waters of Virginia for a period not to exceed 90 days (which means operating a boat not registered in Virginia), and meets any applicable boating safety education requirements of the state of residency, or possesses a Canadian Pleasure Craft Operator's Card;
8. Has assumed operation of the motorboat or personal watercraft due to the illness or physical impairment of the initial operator, and is returning the motorboat or personal watercraft to shore in order to provide assistance or care for the operator; or
9. Is *or was previously* a registered as a commercial fisherman pursuant to § [28.2-241](#) of the Code of Virginia or is under the onboard direct supervision of the commercial fisherman while operating the commercial fisherman's boat. *For the purpose of operating a recreational vessel a registered commercial fishing license is considered valid regardless of whether the license is current.*

B. The minimum standards for boating safety education course competency required by the department are:

1. Successful completion of a classroom boating safety education course in person and a passing score of at least 70% on a written test administered closed-book at the conclusion of the course by the designated course instructor(s) or other designated course assistant;
2. Successful completion of a classroom boating safety education course in person and a passing score of at least 90% on a written test administered open-book at the conclusion of the course by the designated course instructor(s) or other designated course assistant;
3. Successful completion of a boating safety education course offered through the Internet or through an electronic format such as CD-ROM and a passing score of at least 90% on a self-test administered in conjunction with the course material; or
4. A score of at least ~~70%~~ 80% on a proctored equivalency exam.

**Date to become effective**

January 1, 2013

**4VAC15-410-110**

**Equivalency exam criteria**

## **Summary**

Change the passing score for the Proctored Virginia Challenge Exam from 70% to 80%.

Require anyone failing an initial challenge exam to complete an approved boating safety course online or in the classroom rather than taking multiple exams because this will further insure that we have adequately evaluated a boater's knowledge of safe operation on Virginia's waters prior to issuing a completion card.

The scoring criterion for the challenge exam does not adequately evaluate a boater's knowledge of safe operation on Virginia's waters. The score of 70% was used based on the classroom "closed-book" exam; however, this is not a "closed-book" course exam but rather an exam whereby a boater is challenging a Boat VA classroom course solely based on their experience/boating knowledge. A boater is issued a card at the completion of a successful exam. In order to make this exam a better indicator of a boater's knowledge, staff recommends a passing score of 80%. Currently, a person failing a challenge exam may retake the exam as many times as required to pass. This is not administratively or fiscally feasible. Typically when a person fails the challenge exam they opt to take a course in lieu of risking the chance of failing a subsequent exam. This requirement would reduce administrative and logistic cost of rescheduling subsequent challenge exams.

## **Recommended language of amendment**

### **4VAC15-410-110: Equivalency exam criteria**

A. The department shall develop and make available a written equivalency exam to test the knowledge of information included in the curriculum of a boating safety education course. Such exam shall provide experienced and knowledgeable boaters with the opportunity to meet the boating safety education compliance requirement set forth in § [29.1-735.2](#) of the Code of Virginia without having to take and successfully complete a boating safety education course.

B. The equivalency exam shall be proctored by an individual(s) specifically designated by the department. The use of reference materials shall not be allowed while the exam is being administered and the exam shall be completed in a single session with a time limit not to exceed three hours. *A person who fails an equivalency exam is required to complete a NASBLA approved boating safety education course that is accepted department.*

C. The equivalency exam shall be comprised of no less than 75 nor shall more than 100 exam questions and a minimum score of at least ~~70%~~ 80% be considered passing. Upon successful completion, an exam certificate and/or card shall be issued to the person completing the exam.

## **Date to become effective**

January 1, 2013

## **4VAC15-410-20**

### **Definitions**

#### **Summary**

Change the wording in the definition from 70% to 80%. Also add wording that requires a person failing a challenge exam to complete a NASBLA approved boating safety course online or in the classroom.

Add wording to allow the Optional Lifetime Boaters Card to be issued as a replacement boating safety course card.

The passing score of the equivalency exam is being addressed in 4VAC15-410-40 to change it from 70% to 80%. This change would also need to be addressed in these definitions.

Also add wording to allow the Optional Lifetime Boaters Card to be issued as a replacement boating safety course card. This is already a practice when a person applies for one and it is stated in 4VAC15-410-110, but it is not addressed in the current definition.

#### **Recommended language of amendment:**

#### **4VAC15-410-20: Definitions**

As used in this chapter, unless the context clearly requires a different meaning, the following words and terms shall have the following meanings:

"Approved course provider" is any individual, business, or organization that makes available to the boating public a boating safety education course approved by the National Association of State Boating Law Administrators and accepted by the department. An approved course provider shall have executed and have on file a valid cooperative agreement with the department. Persons who simply provide classroom instruction for an approved course provider shall not be considered an approved course provider. The department will make information regarding such approved courses and providers readily available for public access.

"Board" means the Board of Game and Inland Fisheries.

"Boating safety education course" means a course offered in the classroom, through the Internet, or through an electronic format such as CD-ROM that provides a course content and test questions that have been reviewed and approved by the National Association of State Boating Law Administrators in accordance with the National Boating Education Standards, updated January 1, 2008, and accepted by the department. A boating safety education course shall include no less than 50 test questions, which shall include at least 10 test questions specific about Virginia boating laws.

"Department" means the Department of Game and Inland Fisheries.

"Dockside safety checklist" means a document provided by the department that consists of selected facts about Virginia boating laws and safe boat operation that a rental or livery agent or motorboat leasing business is required to present to those who rent or lease a motorboat or personal watercraft. The dockside safety checklist must be reviewed and initialed by the person operating the motorboat before the boat can be rented/leased and operated.

"Equivalency exam" means a written examination that is developed by the department to test the knowledge of information included in the curriculum of a boating safety education course (may also be referred to as a challenge exam). The equivalency exam is intended to provide experienced and knowledgeable boaters with the opportunity to meet the boating safety education compliance requirement set forth in § [29.1-735.2](#) of the Code of Virginia without having to take and successfully complete a boating safety education course. The equivalency exam shall be comprised of no less than 75 or more than 100 test questions, shall include no less than 25 questions specific about Virginia boating laws, shall be proctored by an individual(s) specifically designated by the department, and shall be completed without the use of any reference material. A minimum score of at least ~~70%~~ 80% shall be considered passing.

"Motorboat" means any vessel propelled by machinery whether or not the machinery is the principal source of propulsion and for this chapter shall mean with a motor of 10 horsepower or greater.

"NASBLA" means the National Association of State Boating Law Administrators.

"NASBLA-approved course" means a boating safety education course that has been reviewed and approved by NASBLA.

"Onboard direct supervision" as referenced in § [29.1-735.2](#) B 6 and 9 of the Code of Virginia occurs when a person maintains close visual and verbal contact with, provides adequate direction to, and can immediately assume control of a motorboat from the operator of a motorboat. A person who is water skiing, or is in the cabin of a motorboat and not at the helm/wheel is not considered to be in a position capable of providing direct supervision.

"Operate" means to navigate or otherwise control the movement of a motorboat or vessel.

"Optional Virginia Boater Education Card" means a card authorized for issuance by the department to persons who (i) can show they have met the minimum standard of boating safety education course competency, (ii) possess a valid license to operate a vessel issued to maritime personnel by the United States Coast Guard or a marine certificate issued by the Canadian government, (iii) possess a Canadian Pleasure Craft Operator's Card, or (iv) possess a *valid* commercial fisherman registration pursuant to § [28.2-241](#) of the Code of Virginia. *For the purpose of this subsection a license is considered valid regardless of whether the license is current. This card may be issued as a replacement boating safety course card.*

"Personal watercraft" means a motorboat less than 16 feet in length that uses an inboard motor powering a jet pump as its primary motive power and that is designed to be operated by a person sitting, standing, or kneeling on, rather than in the conventional manner of sitting or standing inside the vessel.

"Proctored" means that the written equivalency exam has been administered under the direct supervision of (i) a designated member of the United States Coast Guard Auxiliary or the United States Power Squadrons®, (ii) a designated department employee or a department volunteer boating safety instructor, or (iii) an individual who has been approved for such purpose by the department.

"Temporary operator's certificate" means a nonrenewable document issued with the certificate of number for the motorboat or personal watercraft, if the boat is new or was sold with a transfer of ownership. A temporary operator's certificate shall be issued only by the department, by any person authorized by the director to act as an agent to issue a certificate of number pursuant to § [29.1-706](#) of the Code of Virginia, or by a license agent of the department authorized to issue a temporary registration certificate for a motorboat or personal watercraft. A temporary operator's certificate shall allow the owner(s) to operate a motorboat with a motor of 10 horsepower or greater or personal watercraft in Virginia for 90 days.

"Vessel" means every description of watercraft, other than a seaplane on the water, used or capable of being used as a means of transportation on water.

"Waters of the Commonwealth" means any public waters within the territorial limits of the Commonwealth.

**Date to become effective:**

January 1, 2013

**4VAC15-410-120**

**Requirements for motorboat rental and leasing businesses and the  
dockside safety checklist program**

**Summary**

There is confusion in the wording between subparagraphs A and C in regards to requiring operators to complete a dockside safety checklist when operating a rented or leased watercraft. Staff recommends that all persons who operate a rented or leased watercraft as covered by the section should either complete a NASBLA approved course, or complete the dockside safety checklist.

In subparagraph A and C we require all operators of rented or leased vessels to complete or carry a Dockside Safety Checklist if they have not already completed an approved and accepted

boating safety education course; however, in subparagraph F we authorize a person to operate under the direct supervision of a person who has completed a Dockside Safety Checklist. If a person has not completed a NASBLA approved course that is accepted by the department then they should not be allowed to supervise someone who has also not completed such course.

**Recommended language of amendment**

**4VAC15-410-120: Requirements for motorboat rental and leasing businesses and the dockside safety checklist program.**

- A. Any person, business, or organization that provides a motorboat with a motor of 10 horsepower or greater or personal watercraft for rent or lease shall provide the rental/lease boat operator with a dockside safety checklist provided by the department. Other persons authorized to operate such boat shall also be provided with the dockside safety checklist.
- B. A dockside safety checklist shall consist of selected facts about Virginia boating laws and safe boat operation.
- C. The authorized operator(s) of the rental/leased boat shall review and initial each item in the dockside safety checklist before they may operate the boat being rented or leased.
- D. The dockside safety checklist for the authorized operator(s) shall be retained on board the boat being rented or leased, along with the rental or lease agreement from the motorboat rental or leasing business, when the boat is being operated.
- E. Any person who presents documentation that he has met the minimum standards for boating safety education course competency in accordance with [4VAC15-410-40](#) B or possesses a valid license to operate a vessel issued to maritime personnel by the United States Coast Guard or a marine certificate issued by the Canadian government or possesses a Canadian Pleasure Craft Operator's Card or possesses a *valid* commercial fisherman registration pursuant to § [28.2-241](#) of the Code of Virginia shall be exempt from the dockside safety checklist requirements. *For the purpose of this subsection a license is considered valid regardless of whether the license is current.*
- F. Pursuant to § [29.1-735.2](#) B 6 and 8 of the Code of Virginia, a person may be allowed to operate the rented/leased boat without completing the dockside safety checklist as long as he is operating under the onboard direct supervision of a person (i) who has completed ~~the dockside safety checklist~~ *a NASBLA approved boating safety course that is accepted by the Department* or (ii) who is otherwise exempt from the dockside safety checklist requirement or has assumed operation of the boat due to the illness or physical impairment of the initial operator, and is returning the boat to shore in order to provide assistance or care for the operator.

**Date to become effective**

January 1, 2013



## 4VAC15-410-140

### Optional Virginia Boater Education Card

#### Summary

Remove of the wording “optional” from the header and rename the heading to “Virginia Boater Education Cards” which would clear up the confusion within the text of the regulation.

The heading on this regulation infers that this section only discusses Optional Lifetime Boaters Cards when in actuality it discusses the optional card and the replacement card for a classroom course. By changing the heading it will eliminate confusion in the regulation.

#### Recommended language of amendment

#### **4VAC15-410-140: ~~Optional Virginia Boater Education Card~~ Cards**

A. The department may establish an optional long-lasting and durable Optional Virginia Boater Education Card for issuance to persons who can show that they have met the minimum standard of boating safety education course competency or who possesses a valid license to operate a vessel issued to maritime personnel by the United States Coast Guard or a marine certificate issued by the Canadian government or possesses a Canadian Pleasure Craft Operator's Card or possesses a commercial fisherman registration pursuant to § [28.2-241](#) of the Code of Virginia.

B. To obtain an optional Virginia Boater Education Card, a person must provide to the department:

1. A completed application on a form provided by the department. The application shall require the applicant's name, current mailing address, and date of birth. The applicant must also sign a statement declaring that statements made on the form are true and correct and that all documents submitted with the form are true and correct copies of documents issued to the applicant. Incomplete applications will be returned to the applicant;

2. A copy of the documentation (such as the boating safety education course completion certificate/wallet card or equivalency exam completion certificate/card) that indicates that the minimum standards for boating safety education course competency have been met. Such documents must contain the name of the individual applying for the Virginia Boater Education Card. The department may require the applicant to provide the original document in the event that the copy submitted with the application is illegible or if the authenticity of the copy is not certain.

C. Upon receipt by the applicant, the optional Virginia Boater Education Card will serve in lieu of any other certificates or cards that have been issued to the bearer as a result of meeting the minimum standards for boating safety education course competency. As such, the Optional

Virginia Boater Education Card will not be transferable or revocable and will have no expiration date.

D. A person may apply, on a form provided by the department, for a replacement Virginia Boater Education Card. A replacement card may be issued if the original card is lost, stolen or destroyed, if misinformation is printed on the card, or if the bearer has legally changed their name. The application shall include an affidavit stating the circumstances that led to the need for replacement of the original card.

**Date to become effective**

January 1, 2013

**4VAC15-410-150**

**Fees**

**Summary**

Change the fee for an original or an optional replacement boating card to \$10 for each. Currently the replacement card is \$8. There is often confusion for the applicant and it is causing multiple write-backs and delays in processing cards. The majority of the card applications we receive is for an original card which cost \$10.

Staff recommends allowing a charge \$10 across the board for an original or replacement card.

**Recommended language of amendment**

**4VAC15-410-150: Fees**

A. Pursuant to § [29.1-735.2](#) E, of the Code of Virginia, the board may establish fees for boating safety courses and certificates provided by the department. Such fees shall not exceed the cost of giving such instruction for each person participating in and receiving the instruction.

B. The department shall not charge a fee for the provision of its state course for basic boating education delivered in a conventional classroom setting.

C. Fees charged by an approved course provider for boating safety education courses are set by the course provider, but must be clearly communicated to the student prior to taking the course.

D. The fee for issuance of an optional Virginia Boater Education Card which will serve in lieu of a previously-obtained boating safety education course certificate/card, ~~shall be \$10. The fee for issuance of~~ or a replacement Virginia Boater Education Card shall be ~~\$8.00~~ \$10.00.

**Date to become effective**

January 1, 2013

## **4VAC15-410**

### **Forms**

#### **Summary**

Remove the current form from the regulation. The requirements of what is to be included on the application form are spelled out in the regulation. By actually having the form in the regulation it ties staff's hands and requires them little latitude to alter the current application form.

#### **Rationale**

By removing the antiquated form, this will allow for the use of electronic forms that meet the requirements of the regulation and allow administrative changes to the application form. This change will result in the ease of use for the boating public and faster processing by staff. As currently included in the regulation this form is redundant and requires us to use it as incorporated.

#### **Recommended language of amendment**

##### **4VAC15-410: Forms**

Remove the current published form and use the wording as outlined in 4VAC410-140 paragraph B to produce the required application.

~~Optional Virginia Boater Education Card Application Form eff. 7/1/08).~~

**OPTIONAL VIRGINIA BOATER EDUCATION CARD  
APPLICATION FORM**

~~Last Name \_\_\_\_\_  
First Name \_\_\_\_\_  
Middle Initial \_\_\_\_\_  
Mailing Address \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_  
Zip Code \_\_\_\_\_  
Home Phone Number \_\_\_\_\_  
Date of Birth \_\_\_\_\_ Gender \_\_\_\_\_  
Hair Color \_\_\_\_\_ Eye Color \_\_\_\_\_  
Name/Date/Type of Boating Education Course Completed \_\_\_\_\_  
\_\_\_\_\_~~

~~The following items must be submitted with this form:  
1) Check or money order (payable Treasurer of Virginia) for \$10.00 (for a replacement card the fee is \$8.00)  
2) A copy of your course completion documents or a copy of your equivalency exam certification~~

~~I certify that the information provided herein by me are true and correct statements and that all documents submitted herewith are true and correct copies of documents issued to me.~~

~~Legal Signature of Applicant \_\_\_\_\_  
Signature Date \_\_\_\_\_~~

~~Send To: Virginia Department of Game and Inland Fisheries  
4010 W. Broad Street  
Richmond, Virginia 23230  
Attn: Boater Education Card~~

~~Optional Virginia Boater Education Card Application Form (eff. July 1, 2008)~~

**Date to become effective**

January 1, 2013

**4VAC15-430-30**

## **Personal flotation devices required**

### **Summary**

Remove the current requirement for vessels less than 16ft in length from carrying a U. S. Coast Guard Approved Type IV Throwable device. As currently written this requirement applies only to registered vessels less than 16 ft in length or vessels that are otherwise not listed in the regulation specifically. Canoes, kayaks, and inflatable rafts of less than 16ft in length are already exempt; however, the majority of the roll-overs and subsequent fatalities occur on these smaller and less stable vessels. Additionally, non-motorized Jon Boats, row boats, and pedal craft of similar size and stability of canoes, kayaks, and inflatable rafts are not exempt and are subject to the provisions of the current regulation. Virginia and Massachusetts are the only two states that require a U. S. Coast Guard Approved Type IV Throwable device on any vessel less than 16ft in length converse to the Code of Federal Regulations (CFR). Since 2003, the addition requirement to carry an approved throwable device has had no affect on fatality numbers cause by drowning from subsequent falls overboard in Virginia on vessels less than 16ft in length.

At the very least this warrants review and comment by the boating public.

### **Rationale**

- The current regulation is more stringent than the Code of Federal Regulations (CFR).
- The current regulation became effective in January 2003, and was passed with the intent to save lives; however, there is no evidence that this has been effective in doing so.
- This requirement causes confusion for the boater because Virginia and Massachusetts are the only two states out of 50 states and 6 U.S. Territories to have such a law for throwable devices.
- Under the CFR, a USCG Approved Type IV Throwable device is only required on vessels 16ft in length or greater. In coastal areas of Virginia, there is a high probability that a boater will follow CFR rather than Virginia law and therefore be in violation of state law.
- Virginia changed its regulation pertaining to the carriage of USCG Approved Type IV throwable devices on vessels less than 16ft during the 2002 regulatory cycle. This was done in hopes that it *may* decrease fatalities on smaller vessels due to capsizing and falls overboard.
- This regulation has been in effect since January 1, 2003 with no change in the average fatality numbers or no change in fatality numbers caused by drowning due to falls overboard or due to capsizing on small vessels.

There is an exemption for some non-powered boats (canoes, kayaks, and inflatable rafts)

but not others (non-motorized Jon boats, rowboats, or pedal boats)

- If other similar non-motorized vessels are exempt, then the only vessels required to carry a USCG Approved Type IV throwable would be motorized vessels under 16 ft in length and there is no evidence that requiring an approved throwable device on those vessels is accomplishing its intended goal because there are no documented incidents of an approved throwable device saving a life.
- The current regulation is confusing not only to the boating public but also to enforcement officer in the field because it is ambiguous. As currently written, the law relies on intent rather than clear cut elements making it hard to interpret. For example; by listing canoes, kayaks, and inflatable rafts and not specifically spelling out “non-motorized”, officers and boaters have to interpret the law because by adding a motor to any vessels they become a motorboat. This is not clearly stated as written.
- We have accident data from 2001 – 2011 that does not support the idea that requiring a USCG Approved Type IV throwable device for certain vessels less than 16ft in length has accomplished its goal. Further that there is a high likelihood for confusion and subsequent citations.
- Lastly we are requiring Virginia boaters to purchase and maintain an additional piece of equipment on their recreational vessels that is not required in 99% of U.S states and territories.

#### Boating Accident and Fatality History 2001 – 2011:

Year	Reported Accident	Total Fatalities	Total Drowning	Total drowning cases wearing a life jacket	VSL involving drowning less than 16ft	VSL less than 16ft drowning occurred wearing life jacket	Total not Wearing, or no life jackets onboard
2001	169	19	17	3	10	3	14
2002	152	20	16	No data	No data	No data	No data
2003	122	20	14	No data	No data	No data	No data
2004	152	20	18	7	11	4	11
2005	132	12	8	4	6	2	2
2006	137	23	20	6	7	2	14
2007	145	23	8	2	4	1	6
2008	095	17	15	0	10	0	15
2009	136	25	21	7	11	6	14
2010	105	15	12	2	6	2	10
2011	120	20	16	1	9	0	16
11 yr av	133	19.4	15	3.555	8.222	2.222	11.333

**NOTE:** 2002 - 2003 data was not available: (columns averaged using available info rather than zero).

A majority of boaters who drown as a result of capsizing or falls overboard either had no life jackets on board the boat or were not wearing one.

**Surveys conducted:**

- Staff surveyed all 50 states and 6 U.S. Territories through the National Association of State Boating Law Administrators (NASBLA), staff was able to validate that Virginia and Massachusetts are the only two states (Commonwealths) that require a USCG Approved Type IV throwable device on any vessels less than 16ft in length. We had 100% participation from the states and 2 out of 6 U.S. Territories replied to the actual survey and in follow up with NASBLA it was confirmed that all 6 territories follow the CFR and required no approved throwable device on vessels less than 16ft in length.
- Staff conferred with the U.S. Coast Guard Office of Boating Safety, Washington, DC to further validate that Virginia and Massachusetts are the only two states with a more stringent throwable requirement than CFR.
- Under our current regulation we are essentially requiring a USCG Approved Type IV throwable on ONLY the following vessels: motorboats, row boats, pedal boats, or any specifically exempt vessel listed in our regulation. These specifically exempt vessels include: Personal Watercraft (PWC) commonly referred to as jet skis, sailboards, canoes, kayaks, inflatable rafts, racing sculls, and vessels that are under 16ft in length but registered in another state.

**Recommended language of amendment**

**4VAC15-430-30: Personal flotation devices required**

A. Except as provided in [4VAC15-430-40](#), it shall be unlawful to use a recreational vessel unless at least one PFD of the following types is on board for each person:

1. Type I PFD;
2. Type II PFD; or
3. Type III PFD.

B. Except as provided in [4VAC15-430-40](#), it shall be unlawful to use a recreational vessel *of 16 ft or greater* unless one Type IV PFD is on board in addition to the total number of PFDs required in subsection A of this section.

C. Notwithstanding the provisions of § [29.1-742](#) of the Code of Virginia, it shall be unlawful to operate a personal watercraft unless each person riding on the personal watercraft or being towed by it is wearing a Type I, Type II, Type III or Type V PFD.

**Date to become effective**

January 1, 2013

**4VAC15-430-40**

**Personal flotation device exemptions**

**Summary**

Change the current exemptions for vessels required or exempted from carrying a USCG Approved Type IV Throwable device so that the exemptions would be in concert with the Code of Federal Regulations.

**Rationale**

See rationale for 4VAC15-430-30

**Recommended language of amendment**

**4VAC15-430-40: Personal flotation devices required**

A. A Type V PFD may be used in lieu of any PFD required under [4VAC15-430-30](#), provided:

1. The approval label on the Type V PFD indicates that the device is approved:
  - a. For the activity in which the vessel is being used; or
  - b. As a substitute for a PFD of the type required on the vessel in use;
2. The PFD is used in accordance with any requirements on the approval label;
3. The PFD is used in accordance with requirements in its owner's manual, if the approval label makes reference to such a manual; and
4. The PFD is being worn.

~~B. Personal watercraft, kayaks, canoes, inflatable rafts and vessels less than 16 feet in length that are registered in another state are exempted from the requirements for carriage of the additional Type IV PFD required by [4VAC15-430-30](#).~~



***B. The following vessels are exempted from the requirements for carriage of the additional Type IV PFD required by 4VAC15-430-30.***

1. *Personal watercraft*
2. *Non-motorized canoes and kayaks 16 ft in length and over.*
3. ~~€. Racing shells, rowing sculls, racing canoes and racing kayaks are exempted from the requirements for carriage of any Type PFD required by 4VAC15-430-30.~~
4. ~~Đ. Sailboards are exempted from the requirements for carriage of any Type PFD required by 4VAC15-430-30.~~
5. ~~Ɛ. Vessels of the United States used by foreign competitors while practicing for or racing in competition. are exempted from the carriage of any PFD required under 4VAC15-430-30, provided the vessel carries one of the sponsoring foreign country's acceptable flotation devices for each foreign competitor on board.~~

**Date to become effective**

January 1, 2013

**4VAC15-430-110**

**Visual distress signal stowage, serviceability, marking**

**Summary**

Add wording to this regulation that clears up confusion regarding addition visual distress signals on board recreational vessels beyond the minimum required.

This is confusing to the officer in the field and to the boater. In the Code of Federal Regulations additional and excess the Visual Distress Signals (VDS) for recreational vessels are not considered in violation as long as the vessel has the minimum number required that are approved, in good and serviceable condition, and properly stowed.

**Recommended language of amendment**

**4VAC15-430-110: Visual distress signal stowage, serviceability, marking**

- A. It shall be unlawful to use a vessel unless the visual distress signals required by [4VAC15-430-80](#) are readily accessible.
- B. It shall be unlawful to use a vessel unless each signal required by [4VAC15-430-80](#) is in serviceable condition and the service life of the signal, if indicated by a date marked on the

signal, has not expired. *Signals in addition to the minimum required are not considered to be in violation of this subsection if the minimum requirement has been met.*

C. It shall be unlawful to use a vessel unless each signal required by [4VAC15-430-80](#) is legibly marked with a USCG approval number or certification statement.

**Date to become effective**

January 1, 2013

**DEPARTMENT OF GAME AND INLAND FISHERIES**

**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Bureau of Wildlife Resources

**PRESENTER:** Bob Duncan

**DATE SUBMITTED:** August 7, 2012

**SUBMITTED BY:** David Whitehurst

**SUBJECT:** 2012-2013 Migratory Waterfowl Seasons and Bag Limits

**BACKGROUND:**

For all migratory waterfowl, the U.S. Fish and Wildlife Service provides the season and bag limit frameworks within which the Department may select certain options. The frameworks and bag limits for the 2012-13 waterfowl seasons are the same as last year with two exceptions, 1) five days were added to the AP Canada Goose season framework with the framework date ending on February 5 and 2) the bag limit on scaup increased from two to four birds.

The changes noted above, the overall status of waterfowl populations and habitat conditions, and the Federal waterfowl season frameworks were discussed at a public input meeting held on July 30, 2012 at the department's headquarters. Fourteen individuals attended the public meeting and provided input on their preferences for seasons and bag limits within the given frameworks. In addition, comments were received by email and phone, and from our website during the open comment period for general wildlife regulations.

Staff recommendations, population status and harvest fact sheets, and the public comments received as of this mailing are included in this packet. Staff will give a presentation on their recommendations at the board meeting.

**RECOMMENDATION:** Motion to adopt as final the 2012-13 Waterfowl Seasons and Bag Limits.

# **VIRGINIA DEPARTMENT OF GAME AND INLAND FISHERIES**

## **2012-2013 WATERFOWL SEASONS AND BAG LIMITS FEDERAL FRAMEWORKS AND STAFF RECOMMENDATIONS**



Artwork for the 2012 Virginia Migratory Waterfowl Conservation Stamp by John Obolewicz

**Prepared by  
Bureau of Wildlife Resources  
August 2012**

**VIRGINIA DEPARTMENT OF GAME AND INLAND FISHERIES**

**2012-2013 MIGRATORY WATERFOWL FEDERAL FRAMEWORKS, SEASONS AND  
BAG LIMITS RECOMMENDATIONS**

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## **FACT SHEET - Waterfowl Hunters and Harvests**

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- Liberal duck seasons (60 days, 6 bird bag limit) and resident goose seasons have resulted in high waterfowl harvests in Virginia during the past ten years. Harvest has averaged ~150,000 ducks and ~60,000 geese from 2000 - 2011, compared to 114,770 ducks and 25,000 geese during the 1990's. The long season length and liberal bags offer greater opportunity and a greater cumulative harvest over the course of the season.
- Waterfowl hunter numbers in Virginia have been generally stable since the late 1990's, and Federal Duck Stamp sales for the 5 years period 2006-10 have averaged 23,390 in Virginia. Since 1999, the Harvest Information Program (HIP) has been used to estimate hunter effort and harvest. The average number of duck and goose hunters over the past 3 years, as measured by HIP, was 13,618 and 12,360 respectively.
- Last season (2011-12), mild weather condition throughout much of the winter kept birds widely dispersed and often difficult to find. Mild conditions existed throughout the Atlantic Flyway and much of the country last year, and in general, duck and goose harvests were lower than the previous year and the past 5-year average.
- The total duck harvest in 2011-2012 in Virginia (141,100) decreased 17% from the previous year (169,800) and was 5% below the past 5-year average (148,200).
- Mallards are the most commonly harvested duck in Virginia, and along with the bufflehead, wood duck, ring-necked duck and black duck comprise the top 5 harvested species. The mallard harvest in Virginia in 2011-12 (34,891) decreased by 42% from 2010-2011, and was 22% lower than the past 5-year average (44,980).
- The Canada goose harvest in Virginia in 2011-12 (60,721) decreased 15% from last year and was 5% below the past 5-year average (63,600).

## FACT SHEET - The Status of Ducks

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**Mid-Continent Areas:** Annual precipitation is the most important factor influencing the quantity and quality of nesting and brood rearing habitat for prairie-nesting birds. The number of ponds counted during the USFWS May breeding waterfowl survey is an index used for assessing waterfowl nesting conditions. This year, habitat conditions were not as good as they have been the past couple years. Last winter was mild with little snow pack and below average precipitation. Many wetland basins were drier and the associated nesting cover was in poorer shape. The 2012 May pond count (5.5 million) was 32% lower than last year (8.1 million), but still 9% above the long-term average (5.1 million).

Despite the decline in habitat conditions, the total duck breeding population (BPOP) estimate for the mid-continent area this year was higher than last year, reaching a record 48.6 million ducks. This estimate is 7% higher than last year (45.6 million), and 43% above the long-term (1955-2011) average. However, productivity is expected to be lower this year because of the poorer habitat conditions. The Breeding population estimates (BPOP), along with the percent change from last year and the long-term average, are presented below for the 10 most common species. Record high numbers were counted for Blue-Winged Teal and Northern Shoveler.

Species	2012 BPOP	% Change from 2011	% Change from Long-Term Avg.
<b>Mallard</b>	10.6 million	+15%	+40%
<b>Blue-winged Teal</b>	9.2 million	+3%	+94%
<b>Green-winged Teal</b>	3.5 million	+20%	+74%
<b>Gadwall</b>	3.6 million	+ 8%	+96%
<b>Northern Shoveler</b>	5.0 million	+9%	+111%
<b>Northern Pintail</b>	3.5 million	-22%	-14%
<b>American Wigeon</b>	2.1 million	0%	-17%
<b>Redhead</b>	1.3 million	-7%	+89%
<b>Scaup</b>	5.2 million	+21%	0%
<b>Canvasback</b>	759,900	+9%	+33%
<b>Total Ducks</b>	48.6 million	+7%	+43%

**Eastern Breeding Areas:** In the eastern areas of Canada and the U.S., habitat conditions declined overall relative to 2011, but were generally considered good. Precipitation was down slightly from last year despite earlier spring conditions. Overall, production should be about average this year in the east.

- Breeding population estimates for the 6 most common species surveyed were generally similar to last year and their past ten-year averages. Black ducks were 11% above last year but similar to their long-term average. The most abundant species counted in the eastern survey area were Black ducks (603,000), Ring-necked ducks (488,000), and Mallards (395,000).

**Virginia:** Nest initiation was 1-2 weeks earlier this year due to mild winter and spring conditions. Drier condition in late spring impacted brood rearing habitats but production is expected to be good this year.

- The Breeding Pair estimate for Mallards (29,595) increased and was 10% above their long-term average. Black Duck (197) and wood duck (12,576) BPOPs increased slightly from last year but

remain 90% and 47% below their respective long-term averages.



# GENERAL DUCK SEASON

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## FEDERAL FRAMEWORK

- Outside Dates:** September 29 - January 26
- Season Length:** 60 hunting days; plus 2 Youth Waterfowl Hunt Days, can be non-consecutive\*
- Bag Limit:** Daily Bag limit of 6 ducks and may include no more than 4 mallards (only 2 can be hen mallards), 4 scoters, **4 scaup**, 3 wood ducks, 2 redheads, 2 pintail, 1 black duck, 1 canvasback, 1 mottled duck, and 1 fulvous whistling duck.  
Closed season on harlequin duck.  
The possession limit is twice the daily bag limit.
- NOTE: There is an option to include mergansers in the general duck bag or leave them as a separate bag (see Merganser framework page 7). If included in the general duck bag, the restriction on 2 hooded mergansers would apply.
- Split Season Options:** 3-way split season, no zones
- Shooting Hours:** 1/2-hour before sunrise until sunset daily

## STAFF RECOMMENDATIONS

- Season Length:** 60 hunting days; plus 2 Youth Waterfowl Hunting Day
- Season Dates:** October 4 - 8 (Black Duck closed) (4 days)  
November 17 – December 1 (13 days)  
December 8 – January 26 (43 days)  
(60 days)  
October 20, February 2 - Youth Waterfowl Days
- Bag Limit:** Daily Bag limit of 6 ducks: may include no more than 4 mallards (only 2 can be hen mallards), 4 scoters, **4 scaup**, 3 wood ducks, 2 redheads, 2 pintail, 1 black duck (except closed Oct. 4 – Oct. 8), 1 canvasback, 1 mottled duck, and 1 fulvous whistling duck.  
Closed season on harlequin duck.  
The possession limit is twice the daily bag limit.
- Shooting Hours:** 1/2-hour before sunrise until sunset daily

## **\*Youth Waterfowl Hunting Days**

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### **Guidelines for the proposed Youth Days include:**

1. States may select 2 days per duck-hunting zone, designated as "Youth Waterfowl Hunting Days," in addition to their regular duck seasons.
2. The 2 days (no longer required to be consecutive) must be held outside of any regular duck season on a weekend, holidays, or other non-school days when youth hunters would have the maximum opportunity to participate.
3. The days could be held up to 14 days before or after any regular duck season frameworks or within any split of a regular duck season.
4. The daily bag limit is the same as that allowed in the regular season and includes ducks, mergansers, coots, moorhens, gallinules, 2 Canada geese (except in Canada Goose Zones where the bag limit is higher), and 1 tundra swan (if the youth possesses a tundra swan permit). Flyway species restrictions remain in effect.
5. Youth hunters must be 15 years of age or younger. Youth 12 years of age and older will need a valid Virginia state hunting license.
6. A licensed adult at least 18 years of age or older must accompany the youth hunter into the field. This adult may not duck hunt, but may participate in other open seasons

# MERGANSER SEASONS

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## FEDERAL FRAMEWORK

### Option A

<u>Season Length:</u>	60 hunting days
<u>Outside Date:</u>	September 29 - January 26
<u>Bag Limit:</u>	5 birds daily, of which only 2 birds may be a hooded merganser (10 in possession, only 4 of which may be hooded mergansers)

### Option B

To be included into the general duck bag. If included in the general duck bag, the restriction on 2 hooded mergansers would apply.

## STAFF RECOMMENDATIONS

### Option A

<u>Season Dates:</u>	To coincide with general duck season
<u>Bag Limit:</u>	5 birds daily, of which only 2 birds may be a hooded merganser (10 in possession, only 4 of which may be hooded mergansers)

## **SPECIAL SEA DUCK SEASON IN SEA DUCK ZONE \***

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### **FEDERAL FRAMEWORK**

#### **SEA DUCKS - (SCOTER, LONG-TAILED DUCK, AND EIDER)**

<u>Season Length:</u>	107 hunting days
<u>Outside Dates:</u>	September 15 - January 31
<u>Bag Limit:</u>	7 birds per day (14 in possession), but may include no more than 4 scoters (8 in possession).

### **STAFF RECOMMENDATION**

#### **SEA DUCKS (SCOTER, LONG-TAILED DUCK, AND EIDER)**

<u>Season Dates:</u>	October 4 - January 31	(103 days)
<u>Bag Limit:</u>	7 birds per day (14 in possession), but may include no more than 4 scoters (8 in possession)	

\* **Sea Duck Zone:** Those waters at a distance greater than 800 yards from any shore, island or emergent vegetation in the following area: the ocean waters of Virginia, the tidal waters of Northampton and Accomack Counties, and the Chesapeake Bay and each of its tributaries up to the first highway bridge. Back Bay and its tributaries are not included in the Sea Duck Zone.

# COOT, GALLINULE & MOORHEN SEASONS

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## FEDERAL FRAMEWORK

### COOT:

Season Length: 60 hunting days  
Outside Date: September 29– January 26  
Bag Limit: 15 birds daily (30 in possession)

### GALLINULE/MOORHEN:

Season Length: 70 hunting days  
Outside Dates: September 1 - January 26  
Bag Limit: 15 daily (30 in possession)

## STAFF RECOMMENDATIONS

### COOT:

Season Dates: To coincide with general duck season.  
Bag Limit: 15 daily (30 in possession)

### GALLINULE/MOORHEN:

Season Dates: To coincide with general duck season.  
Bag Limit: 15 daily (30 in possession)

## **FACT SHEET - The Status of Migrant Canada Geese**

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- Migrant Canada geese from the Atlantic Population declined significantly from the mid-1980's through the mid-1990s. The hunting season was closed in 1995 to allow the population to recover. The population rebounded quickly between 1995 and 1999, and a limited hunting season (6 days with a 1 bird bag) was held in both 1999 and 2000.
- As the population increased, hunting regulations were liberalized. The season was extended to 30 days in 2001, and 45 days in 2002. The bag limit remained at 1 per day through 2003. In 2004, the season remained at 45 days but a 2 goose daily bag was allowed for the last 20 days. From 2005 through 2011, the season was 45 days with 2 geese for the entire season.
- The breeding population estimate for 2012 (190,300) is 2% below last year's estimate.

<u>YEAR</u>	<u>NUMBER OF PAIRS</u>	
1988	118,031	
1993	91,307	
1994	40,086	
1995	29,302	(season closed)
1996	46,058	“ “
1997	63,216	“ “
1998	42,166	(season closed, incomplete survey)
1999	77,451	(season reopened, 6 days/1 bird)
2000	93,230	
2001	146,662	
2002	164,840	
2003	156,937	
2004	174,793	
2005	162,395	
2006	160,020	
2007	195,709	
2008	169,699	
2009	176,118	
2010	154,028	
2011	194,900	
2012	190,300	

- Habitat conditions on the nesting grounds were similar to last year and to the long term average. Winter temperatures in 2011-2012 were below normal, although snow fall was less than the region typically receives.
- Production for 2012 is expected to be similar to or slightly better than last year, and about average overall. The peak hatch date (June 28) was slightly later than average (June 26), and clutch size (3.4) was also slightly smaller than the long-term average (3.8).

## **Canada Goose Population Zones and Hunting Zones**

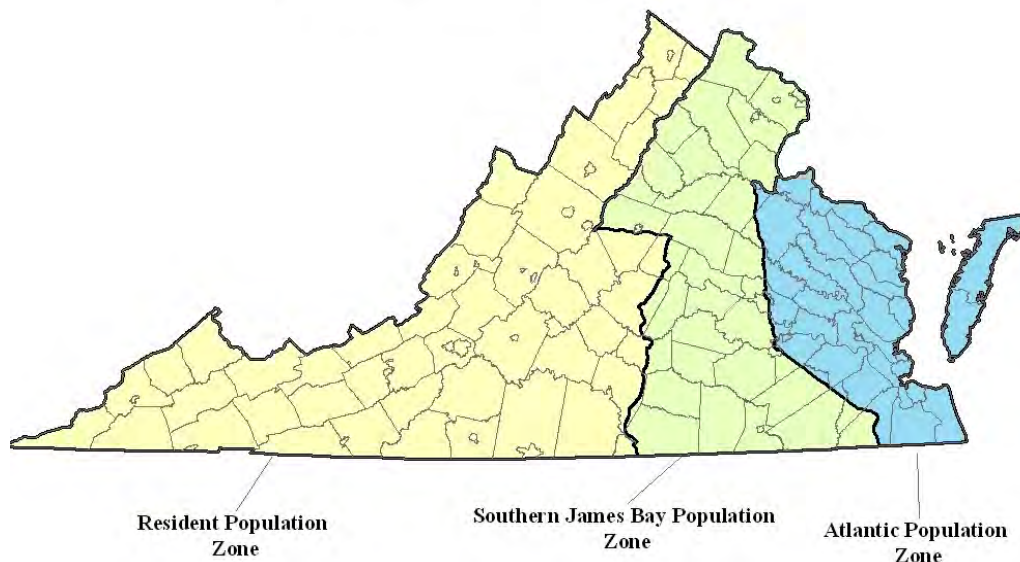
- There are 4 subpopulations of Canada geese in Virginia. These include the Atlantic Flyway Resident Population (RP) along with three migrant goose populations, the North Atlantic Population (NAP), the Southern James Bay Population (SJBP), and the Atlantic Population (AP). The majority of our migrant geese (~82%) are from the AP, about 18% are from the SJBP, and <1% are from the NAP.
- Based on recent research and banding analyses, we have been able to better delineate the distribution and migration corridors used by these different subpopulations of geese. This information allowed us to create a new hunt zone in the western part of the state in 2009 that has relatively few migrant geese and therefore was allowed to have a more liberal hunting season framework.
- We split the former “Western Hunt Zone” into two separate zones in 2009. The western-most portion of the state was designated as the Resident Population Hunt Zone (RP) and the central portion of the state was designated as the Southern James Bay Population Hunt Zone (SJBP). The eastern zone remains the same and is known as the Atlantic Population Hunt Zone.

**Atlantic Population (AP) Hunt Zone** – The area east of the Stafford/King George County line from the Potomac River south to the Rappahannock River, then west along the Stafford County line to Interstate 95, then south along I-95 to Route 460 in Petersburg, then southeast along Route 460 to Route 32 in the City of Suffolk, then south to the North Carolina border.

**Southern James Bay Population (SJBP) Hunt Zone** – The area to the west of the AP Hunt Zone boundary and east of the following line: the “Blue Ridge” (Loudoun County-Clarke County line) at the West Virginia-Virginia Border, south to Interstate 64 (the Blue Ridge line follows county borders along the western edge of Loudoun-Fauquier-Rappahannock-Madison-Greene-Albemarle and into Nelson Counties), then east along Interstate Rt. 64 to Route 15, then south along Rt. 15 to the North Carolina line.

**Resident Population (RP) Hunt Zone** – The portion of the state west of the SJBP Hunt Zone.

### **Virginia's Canada Goose Hunt Zones**



## **FACT SHEET - The Status of Resident Canada Geese, August 2012**

- The resident Canada goose population increased significantly during the 1980's and early 1990's. The population peaked at over 260,000 geese in the mid-late 1990's in Virginia and has been steadily reduced by specific management programs since that time. The current population estimate is 158,267 (+/- 28%) in Virginia and over 1 million in the Atlantic Flyway.
- Special resident goose-hunting seasons were initiated in 1993 in Virginia to help manage the resident goose population and to provide opportunities for waterfowl hunters. These seasons are designed to occur prior to the arrival of migrant geese, or in areas where there are fewer migrant geese. The first migrant geese begin to arrive in Virginia around September 25 each year, so the Federal Framework allows Virginia to conduct its resident season from September 1-25.
- There are fewer migrant geese located in the western part of the state. A special late hunting season west of I-95 was initiated in 1996-97. In 2009, we split the former "Western Hunt Zone" into two separate zones to provide even more opportunities to harvest resident geese in a new Resident Population Hunt Zone.
- Special resident goose seasons have been very popular. These seasons are also the most effective tool in managing resident goose populations in areas where hunting is allowed. Liberal hunting seasons have increased hunter participation and resident goose harvests, and have been effective in reducing the population. Harvest objectives are to maintain the statewide population at or below current levels.

<b>Year</b>	<b>Resident Goose Pop. Est.3-Year running Avg.</b>	<b>September Harvest</b>	<b>Late Season Harvest</b>
1993	115,835	2,316	--
1994	129,409	3,464	--
1995	151,043	5,500	--
1996	181,813	10,000	12,000
1997	249,612	10,500	15,400
1998	264,867	12,200	19,000
1999	261,554	12,800	21,900
2000	227,164	13,400	44,100
2001	218,384	11,800	31,800
2002	218,719	14,300	26,800
2003	192,780	14,800	17,000
2004	152,015	17,000	14,100
2005	141,377	10,100	9,200
2006	145,322	11,100	15,700
2007	157,598	13,600	11,800
2008	154,984	17,500	16,800
2009	142,311	16,800	16,600
2010	147,313	15,600	--
2011	154,637	14,700	--
2012	158,267	--	--



- In areas where hunting is not feasible, other options are necessary to mitigate conflicts. New strategies including Airport, Agricultural, and Nest and Egg Depredation Orders have been implemented in the last several years to help manage resident goose conflicts.

# CANADA GOOSE SEASON

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## FEDERAL FRAMEWORKS

### ATLANTIC POPULATION ZONE:

<u>Season Length:</u>	<b>50 hunting days</b>
<u>Outside Dates:</u>	November 15 – <b>February 5</b>
<u>Bag Limit:</u>	2 birds daily (4 in possession)

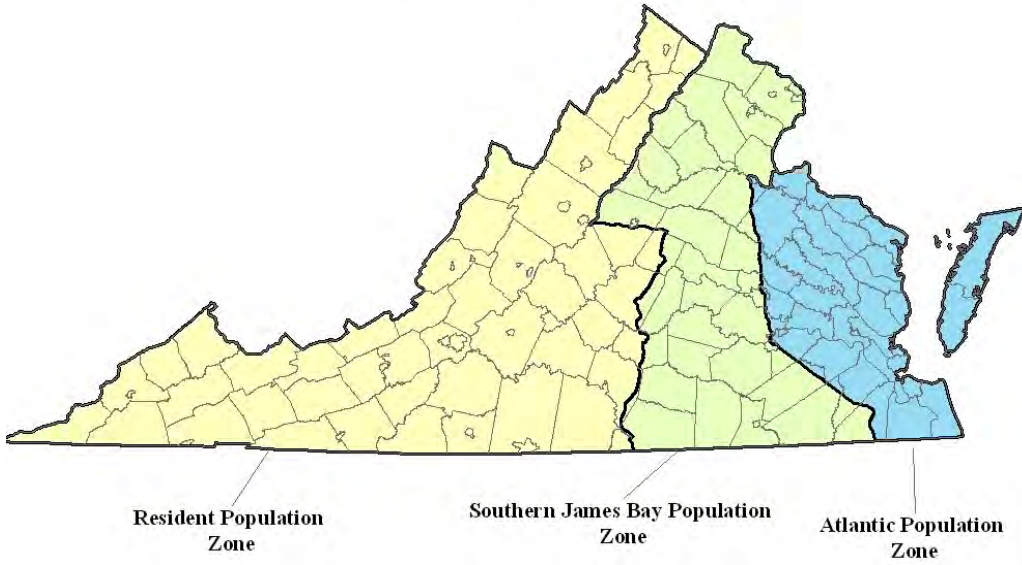
### SOUTHERN JAMES BAY POPULATION ZONE

<u>Outside Dates and Season Length:</u>	
<b>Regular Season:</b>	November 15 – January 14 (up to 40 hunting days)
<b>Extended Season:</b>	January 15 – February 15
<u>Bag Limit:</u>	3 per day through January 14 5 per day from January 15 to February 15

### RESIDENT POPULATION ZONE:

<u>Outside Dates:</u>	November 15 – March 10
<u>Season Length:</u>	80 hunting days
<u>Bag Limit:</u>	5 birds daily (10 in possession)

## Virginia's Canada Goose Hunt Zones



## CANADA GOOSE SEASON (cont)

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### STAFF RECOMMENDATIONS

#### ATLANTIC POPULATION ZONE: (AP)

**Season Dates:** November 17 – December 1 (13 days)  
December 20 - January 31 (37 days)

**Bag Limit:** 2 geese per day

**Shooting Hours:** 1/2-hour before sunrise until sunset daily

#### SOUTHERN JAMES BAY POPULATION ZONE (SJBP)

**Season Dates:**

**Regular Season:** November 17 – December 1 3/day (13 days)  
December 14 – January 14 3/day (27 days)

**Extended Season:** January 15 - February 15 5 geese/day (28 days)

**Shooting Hours:** 1/2-hour before sunrise until sunset daily

#### RESIDENT POPULATION ZONE: (RP)

**Season Dates:** November 17 – December 1 (13 days)  
December 8 - February 23 (67 days)

**Bag Limit:** 5 birds daily (10 in possession)

**Shooting Hours:** 1/2-hour before sunrise until sunset daily

## **FACT SHEET - Status of Light Geese (Greater and Lesser Snow Geese, and Ross's Geese)**

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- The Greater Snow Goose population is monitored on spring staging areas near the St. Lawrence Valley in Quebec. The 2012 population estimate was 1 million geese (+/- 12%), which is 10% higher than last year and 12% above the past 5-year average.
- The principle nesting areas for greater snow geese are on Bylot, Axel Heiberg, Ellesmere, and Baffin Islands, and on Greenland. These geese winter along the Atlantic Coast from New Jersey to North Carolina.
- Conditions and nesting phenology were average in the main snow goose nesting areas this year. Clutch size was around average but nest predation was higher than average this year. Lemming populations crashed last winter and predators (arctic foxes) were relying more on goose nests this year. Annual production and the fall flight is expected to be lower than last year, but still in the average to good range.
- Over the last 30 years, snow goose populations have increased almost ten-fold. A shift from feeding almost exclusively in marshes to feeding more on agricultural grains has allowed them to expand their range and habitat use. This shift has also allowed them to return to their breeding habitats in better physical condition, which has led to increased productivity.
- This population boom has resulted in ecological degradation on their breeding, migration and wintering areas. It has also led to conflicts with agricultural interest. Snow geese can cause damage to these habitats by pulling up plant roots and denuding marshes of vegetation.
- Current hunting regulations for snow geese are as liberal as Federal Frameworks will allow and include a 107-day season that runs from October to March, and a bag limit that was increased from 15 to 25 in 2010. Liberal seasons have helped increase the harvest, however, the population is still quite large and concerns remain about detrimental impacts these birds are having on breeding and wintering habitats.
- A Conservation Order (CO) hunting season was established in 2009, and authorizes the use of alternative management strategies (unplugged shotguns, electronic calls, shooting to ½ hour after sunset, no daily bag limit) to further increase the harvest of snow geese in the Atlantic Flyway. Virginia has held a Conservation Order season for the past three years. The number of hunters participating in the season has averaged 213 per year and the harvest has averaged 557 snow geese per year, however, harvest and participation rates have gone down each year.

# LIGHT GOOSE SEASONS

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## FEDERAL FRAMEWORK

### LIGHT GOOSE SEASON

Season Length:

107 hunting days

Outside Dates:

October 1 - March 10

Split Season Option:

3-way split season

Bag Limit:

25 birds daily (no possession limit)

## STAFF RECOMMENDATIONS

### LIGHT GOOSE SEASON

Season Dates:

October 4 – January 31 (103 days)

Bag Limit:

25 birds daily (no possession limit)

## **LIGHT GOOSE CONSERVATION ORDER SEASON**

### **FEDERAL FRAMEWORK**

<b><u>Outside Dates:</u></b>	When no other waterfowl seasons are open
<b><u>Bag Limit:</u></b>	No daily or possession limit
<b><u>Special Hunting Methods:</u></b>	Electronic calls, unplugged shotguns and extended shooting hours to one-half hour after sunset <b>only in areas and at times when other waterfowl seasons are closed.</b>
<b><u>Special Requirements:</u></b>	States participating in the Conservation Order Season are required to monitor hunter participation, effort, and success.

### **STAFF RECOMMENDATION**

**Conservation Order Season Zone:** The same as the AP Canada Goose Zone - The area east of the Stafford/King George County line from the Potomac River south to the Rappahannock River, then west along the Stafford County line to Interstate 95, then south along I-95 to Route 460 in Petersburg, then southeast along Route 460 to Route 32 in the City of Suffolk, then south to the North Carolina border.

<b><u>Season Dates:</u></b>	February 1 – March 30 (50 days)
<b><u>Bag Limit:</u></b>	No daily or possession limit
<b><u>Special Hunting Methods:</u></b>	Electronic calls, unplugged shotguns and extended shooting hours to one-half hour after sunset.
<b><u>Special Requirements:</u></b>	Hunters participating in the Conservation Order Season must register, keep a record of their harvest and participation, and return a harvest report form within two weeks following the close of the season.

## FACT SHEET - Status of Atlantic Brant and Tundra Swan

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- **Brant.** The main breeding areas for Atlantic Brant are in the Eastern Canadian Arctic on Baffin, Southampton, and Ellesmere Islands. Most brant winter along the Atlantic Coast from Massachusetts to North Carolina.
- Breeding habitat conditions were normal in most areas but high water on Southampton Island led to significant nest flooding there this year. Because of this, brant production is expected to be average to below average this year.
- The 2012 Mid-Winter Survey (MWS) count of brant in the Atlantic Flyway (149,200) was similar to last year. The MWS three-year running average is 145,933 and, as specified in the Brant Hunt Plan, falls within the moderate regulation package: 50 days with a 2 bird limit. This is the same regulation that was in effect last year.
- **Tundra Swans.** The Eastern Population of tundra swans nest in arctic tundra areas from the Seward Peninsula of Alaska, east to Hudson Bay and Baffin Island. These birds winter in coastal areas from Maryland to North Carolina. Production of eastern population tundra swans in 2012 is expected to be about average this year, similar to last year.
- There were 111,700 eastern population tundra swans counted on the 2012 Mid-Winter Survey, which is slightly higher than the 2011 count. The three-year running average is 102,214 and no changes in harvest regulations are called for this year.
- Eight states in the U.S. hunt tundra swans including Alaska, Utah, Montana, Nevada, North Dakota, South Dakota, North Carolina and Virginia. Hunting permits (9,600 total) are allocated across these states based on swan numbers and distribution.
- In the Atlantic Flyway, NC winters around 70,000 tundra swans (70% of the AF population), MD ~ 16,000, and VA ~ 6,000, with PA (~1,000), DE (300), and NJ (300) making up the bulk of the remainder. The Atlantic Flyway allocation of 5,600 permits is split between the 2 hunting states in proportion to swan numbers: NC receives 5,000 and VA receives 600.
- The tundra swan hunting season in Virginia is authorized and conducted as specified in the Atlantic Flyway Tundra Swan Management Plan and Hunt Plan, with limits and guidelines as specified under an MOU with the U.S. Fish and Wildlife Service.



# ATLANTIC BRANT

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## FEDERAL FRAMEWORK

### ATLANTIC BRANT:

**Season Length:** 50 hunting days  
**Outside Dates:** September 29 - January 31  
**Split Season Option:** 2-way split season  
**Bag Limit:** 2 birds daily (4 in possession)

## STAFF RECOMMENDATIONS

### ATLANTIC BRANT:

**Season Dates:** November 17 – November 24 (7 days)  
December 8 - January 26 (43 days)  
**Bag Limit:** 2 birds daily (4 in possession)

# TUNDRA SWAN

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## FEDERAL FRAMEWORK

### TUNDRA SWAN:

**Season Length:**

90 hunting days

**Outside Dates:**

October 1 - January 31

State agency may issue up to 600 permits in Virginia and must obtain harvest and hunter participation data. Each permittee is authorized to take one (1) tundra swan per season.

**Bag Limit:**

One per permittee per season

## STAFF RECOMMENDATIONS

### TUNDRA SWAN:

**Season Dates:**

December 1 - January 31 (53 days)

**Bag Limit:**

One per permittee per season

**Hunt Area:**

All counties and portions of counties lying east of U.S. Route I- 95 and south of the Prince William/Stafford county line in Chopawamsic Creek at Quantico Marine Corps Base.

**NOTE:** VDGIF will issue no more than 600 swan hunting permits to holders of a valid Virginia hunting license. Only hunters with a valid 2012-2013 tundra swan hunting permit issued by VDGIF shall be authorized to hunt tundra swans. Each permittee will be authorized to take one tundra swan during the season. Swan hunting permits are non-transferable and are valid for use only by the person to whom issued. Permits must be in the immediate possession of the permittee while swan hunting. Immediately at the time and place of kill, successful hunters must cancel their swan-hunting permit by permanently recording the month and day of kill and by attaching it to the swan as instructed on the permit. The VDGIF is required to obtain hunter participation and harvest information to offer this Tundra Swan hunting season. Hunters are required to complete the accompanying tundra swan hunt questionnaire and return it to the address listed on the questionnaire at the end of your hunt. Those who fail to return a completed questionnaire by February 15, 2013 are ineligible for future drawings.

# **FALCONRY**

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## **FEDERAL FRAMEWORK**

- Season Length:** 107 hawking days  
Not to exceed three segments in any extended season outside the regular season.
- Outside Dates:** September 1 - March 10
- Bag Limit:** 3 daily (6 in possession)
- Note:** Federal Law does not permit Falconry for waterfowl on Sunday.

## **STAFF RECOMMENDATIONS**

- Season Length:** 107 hawking days  
No combination of falconry and firearms hunting can exceed 107 days for any species.
- Bag Limit:** 3 daily
- Season Dates** Recommended dates based on adoption of preceding proposals; if amended, staff requests permission to calculate permissible dates for each species within the allowable federal framework.

### **DUCKS, MERGANSERS, COOTS, MOORHENS AND GALLINULES:**

- Season Dates:** October 4 - 8  
November 17 – February 28

### **CANADA GOOSE:**

- Season Dates:** November 17 – December 1  
December 8 - February 28

### **BRANT and SNOW GOOSE:**

- Season Dates:** October 4 – January 31

## Comparison of 2011-12 and Recommended 2012-13 Waterfowl Seasons

2011-2012 SEASONS	<b>Recommended</b> 2012-2013 SEASONS
<p><u>GENERAL DUCK</u>            Oct. 6 - Oct. 10            Oct. 22, Feb. 4      Youth Days            Nov. 19 – Dec. 3            Dec. 10 – Jan. 28            Bag limit: 6 ducks</p>	<p><u>GENERAL DUCK</u>            Oct. 4 - Oct. 8            Oct. 20, Feb. 2      Youth Days            Nov. 17 – Dec. 1            Dec. 8 – Jan. 26            Bag limit: 6 ducks</p>
<p><u>SEA DUCK IN THE SEA DUCK ZONE</u>            Oct. 6 - Jan. 31</p>	<p><u>SEA DUCK IN THE SEA DUCK ZONE</u>            Oct. 4 - Jan. 31</p>
<p><u>COOTS, MERGANSERS AND GALLINULES</u>            Same as Duck</p>	<p><u>COOTS, MERGANSERS AND GALLINULES</u>            Same as Duck</p>
<p><u>RESIDENT CANADA GOOSE ZONE</u>            Nov. 19 – Dec. 3            Dec. 10 - Feb. 25            Bag limit 5 geese/day</p>	<p><u>RESIDENT CANADA GOOSE ZONE</u>            Nov. 17 – Dec. 1            Dec. 8 - Feb. 23            Bag limit 5 geese/day</p>
<p><u>SJBP CANADA GOOSE ZONE:</u>            Nov. 19 – Dec. 3    (3 geese/day)            Dec. 15 - Jan. 14   (3 geese/day)            Jan. 16 - Feb.15    (5 geese/day)</p>	<p><u>SJBP CANADA GOOSE ZONE:</u>            Nov. 17 – Dec. 1    (3 geese/day)            Dec. 14 - Jan. 14   (3 geese/day)            Jan. 15 - Feb.15    (5 geese/day)</p>
<p><u>ATLANTIC POPULATION GOOSE ZONE</u>            Nov. 19 – Dec. 3            Dec. 23 - Jan. 28            Bag limit 2 geese/day</p>	<p><u>ATLANTIC POPULATION GOOSE ZONE</u>            Nov. 17 – Dec. 1            Dec. 20 - Jan. 31            Bag limit 2 geese/day</p>
<p><u>LIGHT GOOSE SEASON</u>            Oct. 6 – Feb. 4            Bag limit 25 geese/day</p>	<p><u>LIGHT GOOSE SEASON</u>            Oct. 4 – Jan. 31            Bag limit 25 geese/day</p>
<p><u>LIGHT GOOSE CONSERVATION SEASON</u>            Feb. 6 – Mar. 24            No Bag limit, special measures</p>	<p><u>LIGHT GOOSE CONSERVATION SEASON</u>            Feb. 1 – Mar. 30            No Bag limit, special measures</p>
<p><u>ATLANTIC BRANT</u>            Nov. 19 – Nov. 26            Dec. 10 – Jan. 28            Bag limit 2 brant/day</p>	<p><u>ATLANTIC BRANT</u>            Nov. 17 – Nov. 24            Dec. 8 – Jan. 26            Bag limit 2 brant/day</p>
<p><u>TUNDRA SWAN</u>            Dec. 1 - Jan. 31</p>	<p><u>TUNDRA SWAN</u>            Dec. 1 - Jan. 31</p>

## Calendar 2012-2013

### September 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

### December 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

### October 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

### January 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

### November 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

### February 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

**DEPARTMENT OF GAME AND INLAND FISHERIES**

**BOARD MEETING AGENDA ITEM**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Bureau of Wildlife Resources

**PRESENTER:** Robert W. Duncan

**DATE SUBMITTED:** July 31, 2012

**SUBMITTED BY:** Brian Moyer

**SUBJECT:**

Staff recommendations for changes to 4 VAC 15-20-100 Prohibited use of vehicles on department-owned lands.

**BACKGROUND:**

The August 14, 2012, Board meeting has been designated as the appropriate time for final consideration of staff recommendations concerning regulations related to the Department of Justice September 15, 2010 ruling on the Americans with Disabilities Act concerning the use of motorized vehicles on public lands by persons with mobility impairments. Biologists from the Bureau of Wildlife Resources have analyzed field data and considered constituent input received during the last 2 months. As a result of those analyses and input, staffs have developed recommendations for regulatory additions to bring the Agency into compliance with this ruling. The recommended change to regulations follows. Staff recommendations will be summarized in a presentation to the Board.

**RECOMMENDATION:**

Staff recommends that the Board adopt the regulation amendments as presented. If approved, the final regulation will be published in the Virginia Register. In accordance with this staff recommendation.

**Regulation 4VAC15-20.**  
**Definitions and Miscellaneous: In General.**  
**Section 4VAC15-20-100.**  
**Prohibited use of vehicles on department-owned lands.**

**SUMMARY:**

The proposal is to revise the definition of the term “wheelchair”, define “other power-driven mobility devices”, and comply with the provisions of the Americans with Disabilities Act of 1990 as pertains to the use of such devices on department-owned lands.

**PROPOSED LANGUAGE OF AMENDMENT:**

4VAC15-20-100. Definitions and Miscellaneous: In General. Prohibited use of vehicles on department-owned lands.

It shall be unlawful on department-owned lands to drive through or around gates designed to prevent entry with any type of motorized vehicle or to use such vehicles to travel anywhere on such lands except on roads open to vehicular traffic. Any motor-driven conveyance shall conform with all state laws for highway travel; provided, that this requirement shall not apply to the operation of motor vehicles for administrative purposes by department-authorized personnel on department-owned lands. A motorized wheelchair suitable for use in an indoor pedestrian area is not considered a motorized vehicle and, therefore, is not covered by any restrictions on the use of motorized vehicles on department-owned lands. For purposes of this section, the term "wheelchair" means a device designed solely for use by a mobility-impaired person for locomotion that is suitable for use in an indoor pedestrian area. Nothing in this section shall be construed to prohibit the department from allowing the use of wheelchairs or other power-driven mobility devices by individuals with mobility disabilities in accordance with the federal Americans with Disabilities Act of 1990 (P.L. 101-336, 104 Stat. 327).

For the purposes of this section, the term “wheelchair” means a manually operated or power-driven device designed primarily for use by an individual with a mobility disability for the main purpose of indoor, or of both indoor and outdoor locomotion. “Other power-driven mobility device” means any mobility device powered by batteries, fuel, or other engines, whether or not designed primarily for use by individuals with mobility disabilities, that is used by individuals with mobility disabilities for the purpose of locomotion, including golf cars, electronic personal assistive mobility devices, or any mobility device designed to operate in areas without defined pedestrian routes, but that is not a wheelchair within the meaning of this section.

**DEPARTMENT OF GAME AND INLAND FISHERIES**

**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Infrastructure

**PRESENTER:** Larry Hart

**DATE SUBMITTED:** August 7, 2012

**SUBMITTED BY:** Larry Hart

**SUBJECT:** Agency Land Use Plan

**BACKGROUND:**

The agency is required to submit revisions to its land use plans annually to the Department of General Services. Most DGIF lands are exempt since they are conservation lands. We are required to submit changes to developed properties. Staff proposes to submit the changes associates with the relocation of the headquarters.

**RECOMMENDATION:**

Motion to approve staff's proposed land use plan to extend to September 2013.



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# FY 2012

# Summary of Financial Activity

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T. Gelozin  
Director - Planning & Finance  
Finance, Audit and Compliance Committee  
July 25, 2012



# FY 2012 - Executive Summary

- Gross revenue is lower over same period last year
  - Federal Revenue – lower (due to land purchases)
  - License Revenue – higher (associated with fee change)
- Expenditures are below budget
  - Personnel cost under budget (hiring freeze)
  - Operational purchases are within acceptable variances
- Capital projects
  - Favorable construction pricing
  - Mild weather has kept projects on schedule

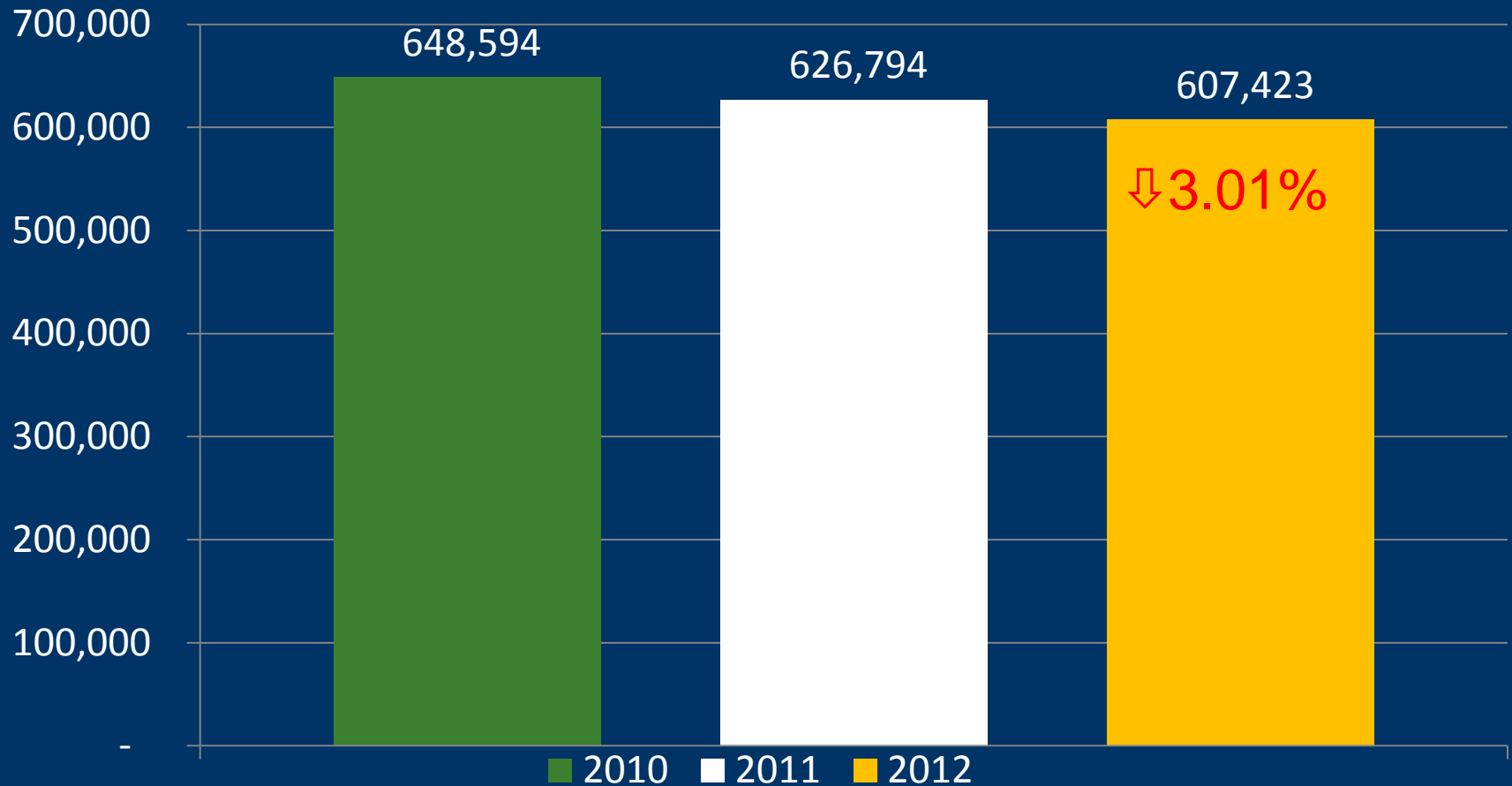
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# FY 2012 Sales Activity

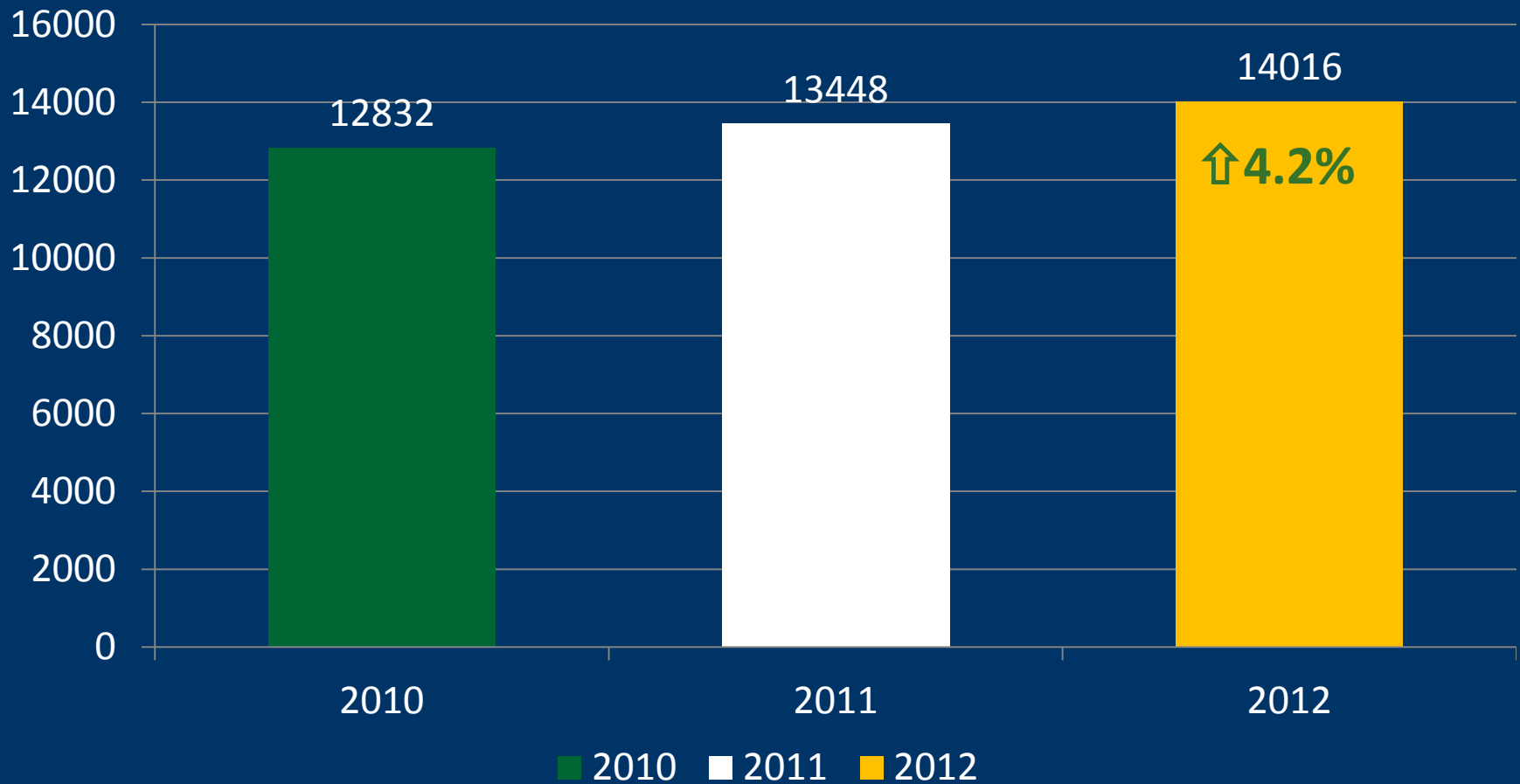
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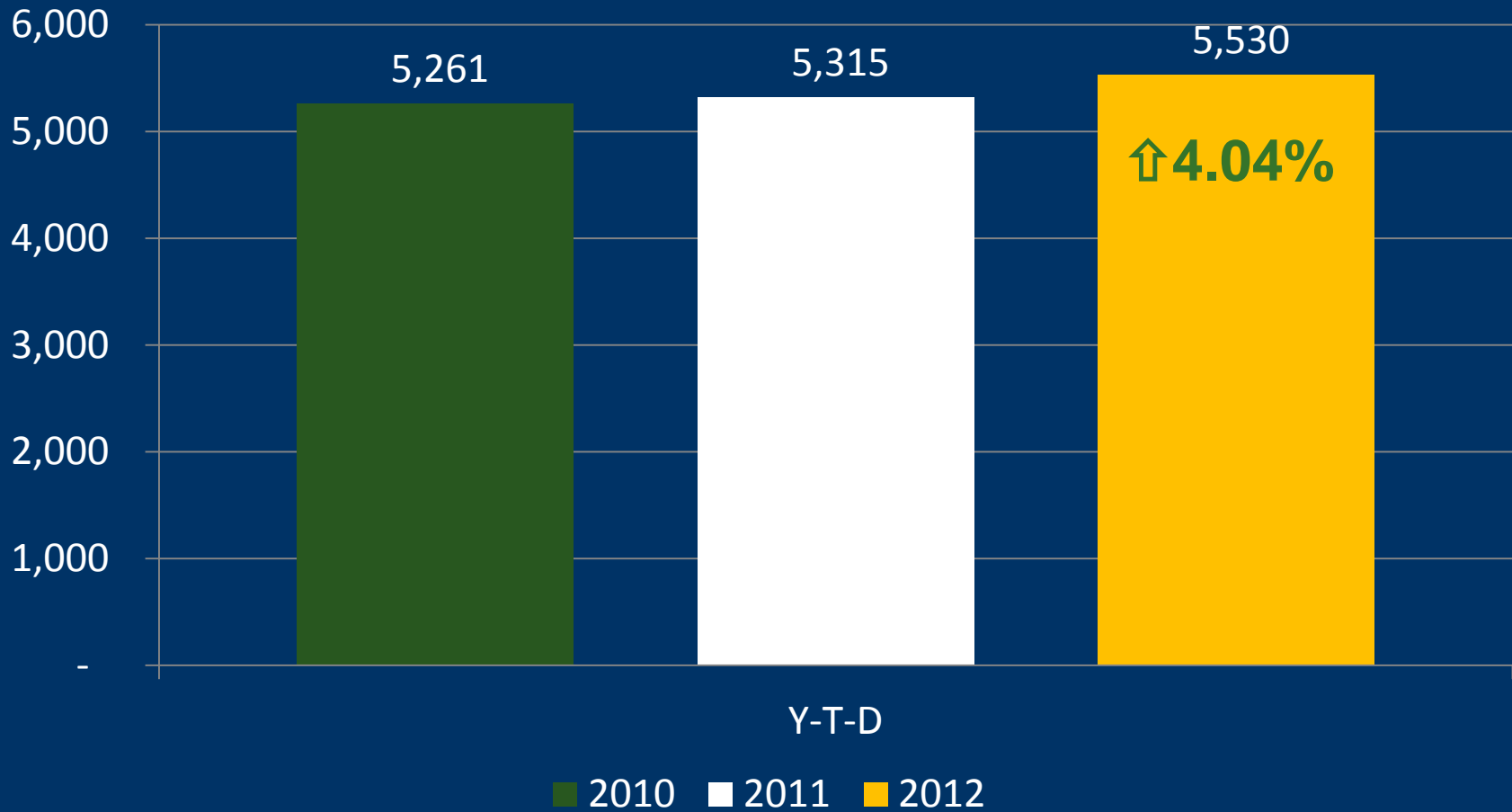
# License Comparisons - Hunting



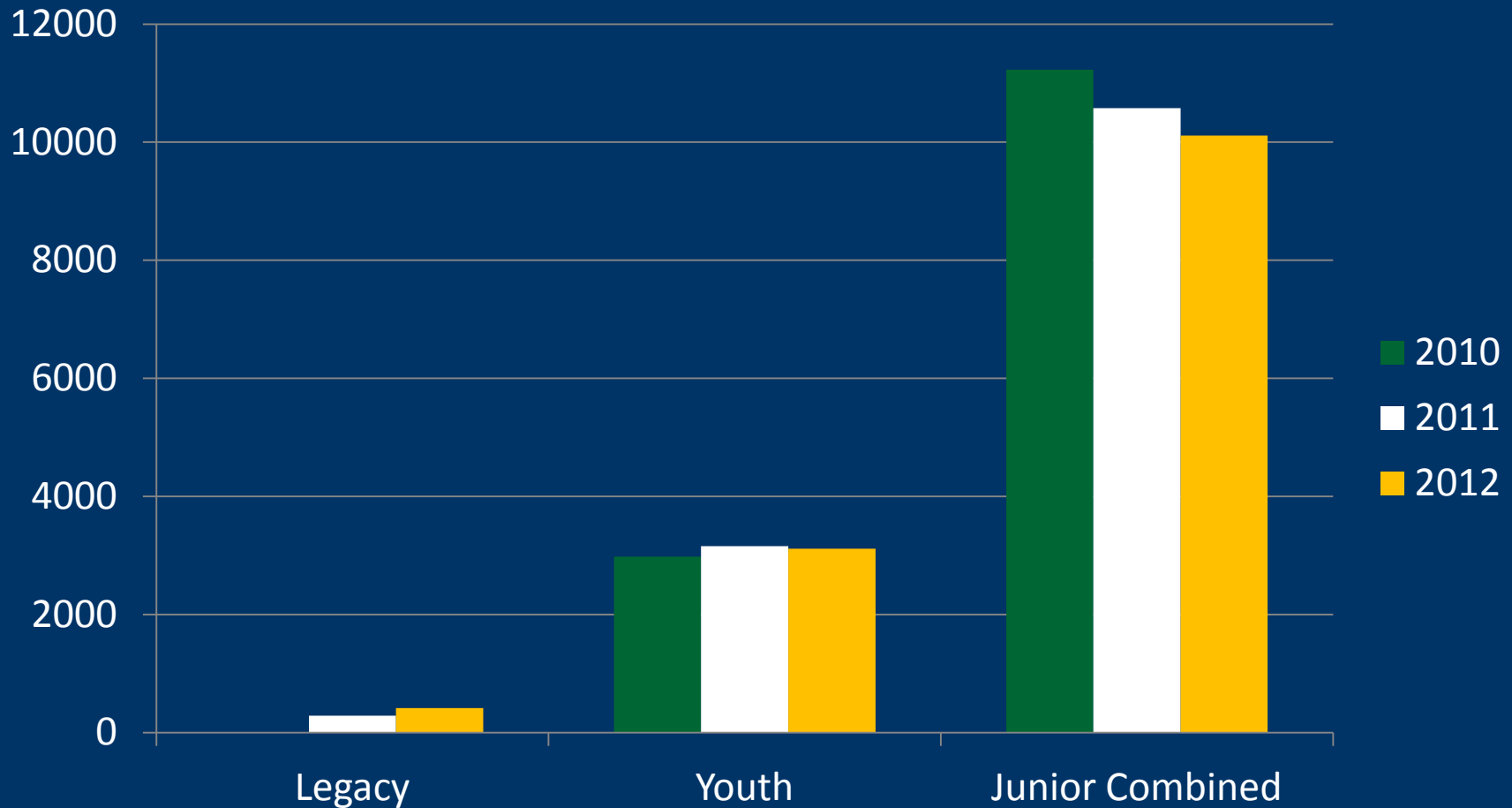
# License Comparisons - Lifetime



# License Comparisons – **Apprentice**

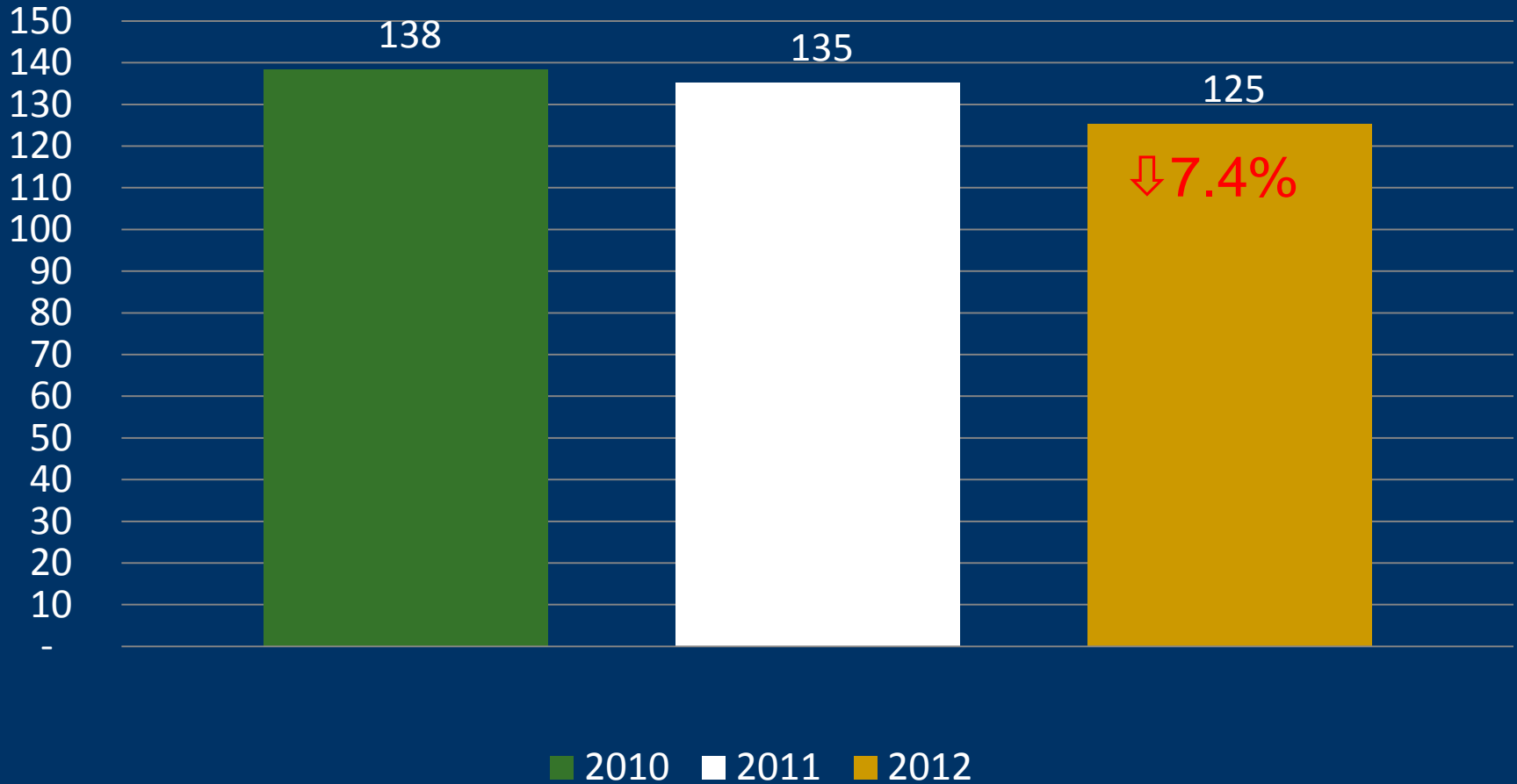


# Hunting Specialty Licenses – Youth



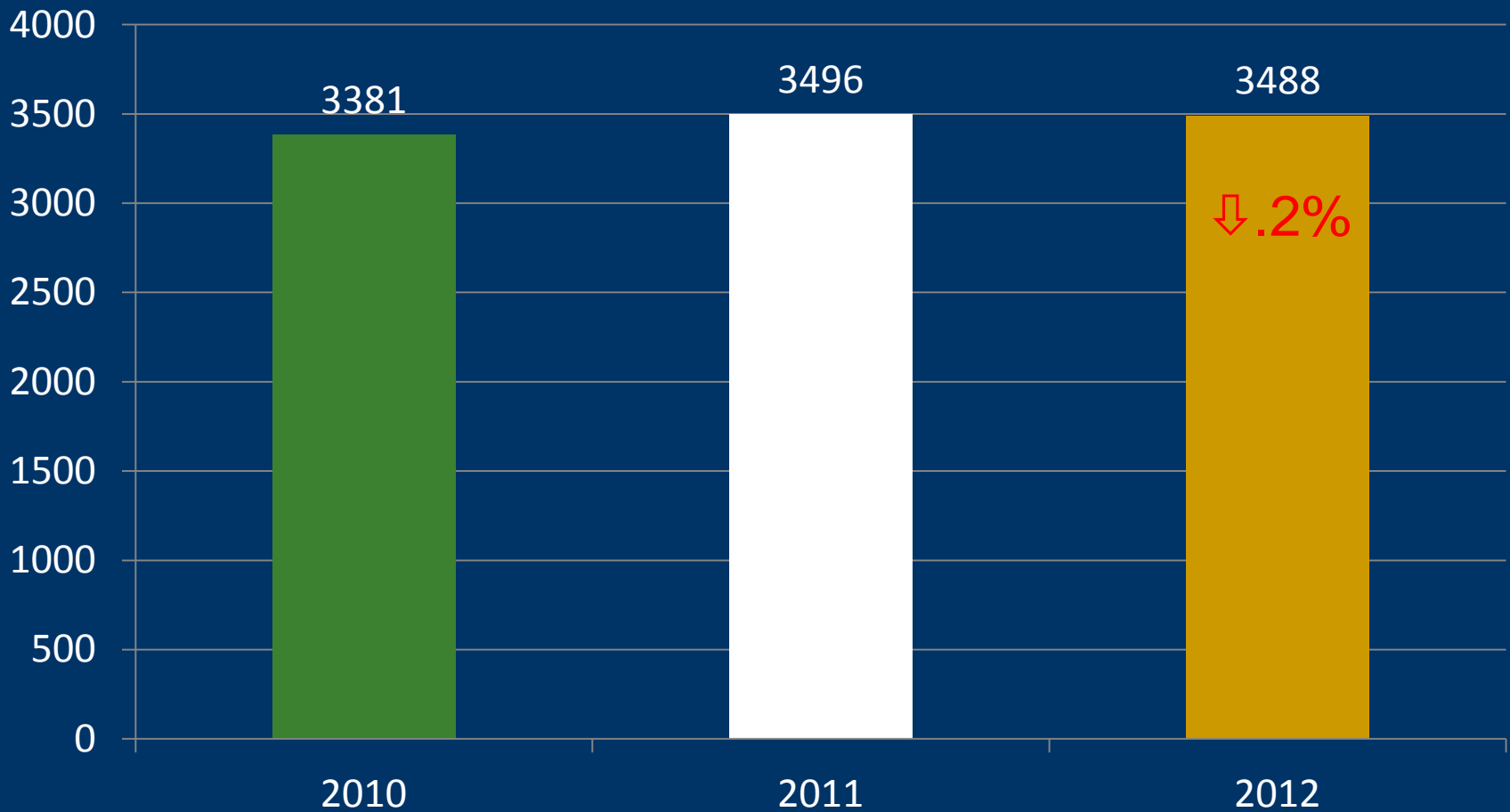
# License Comparisons - Fishing

#s in 000s

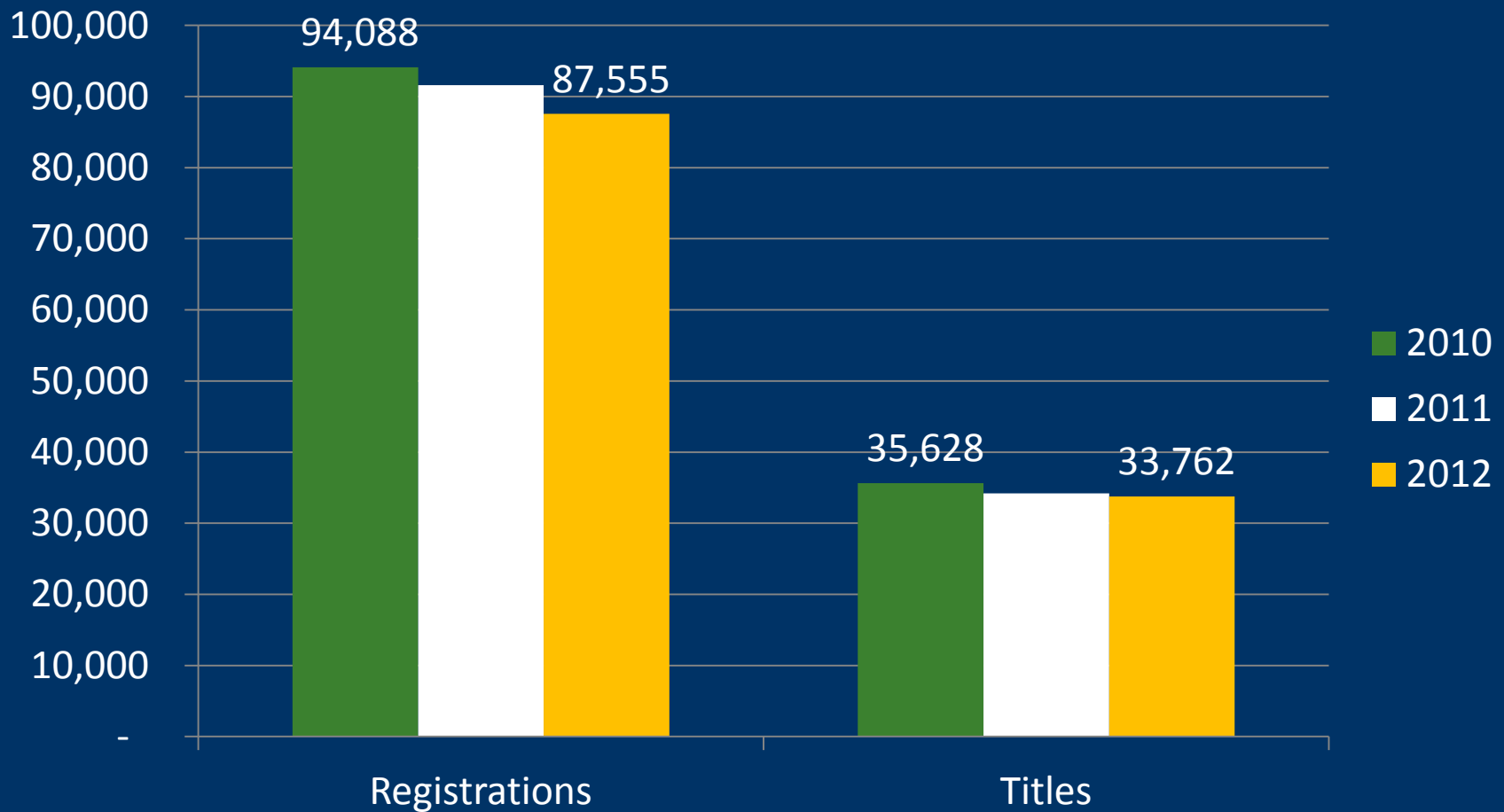




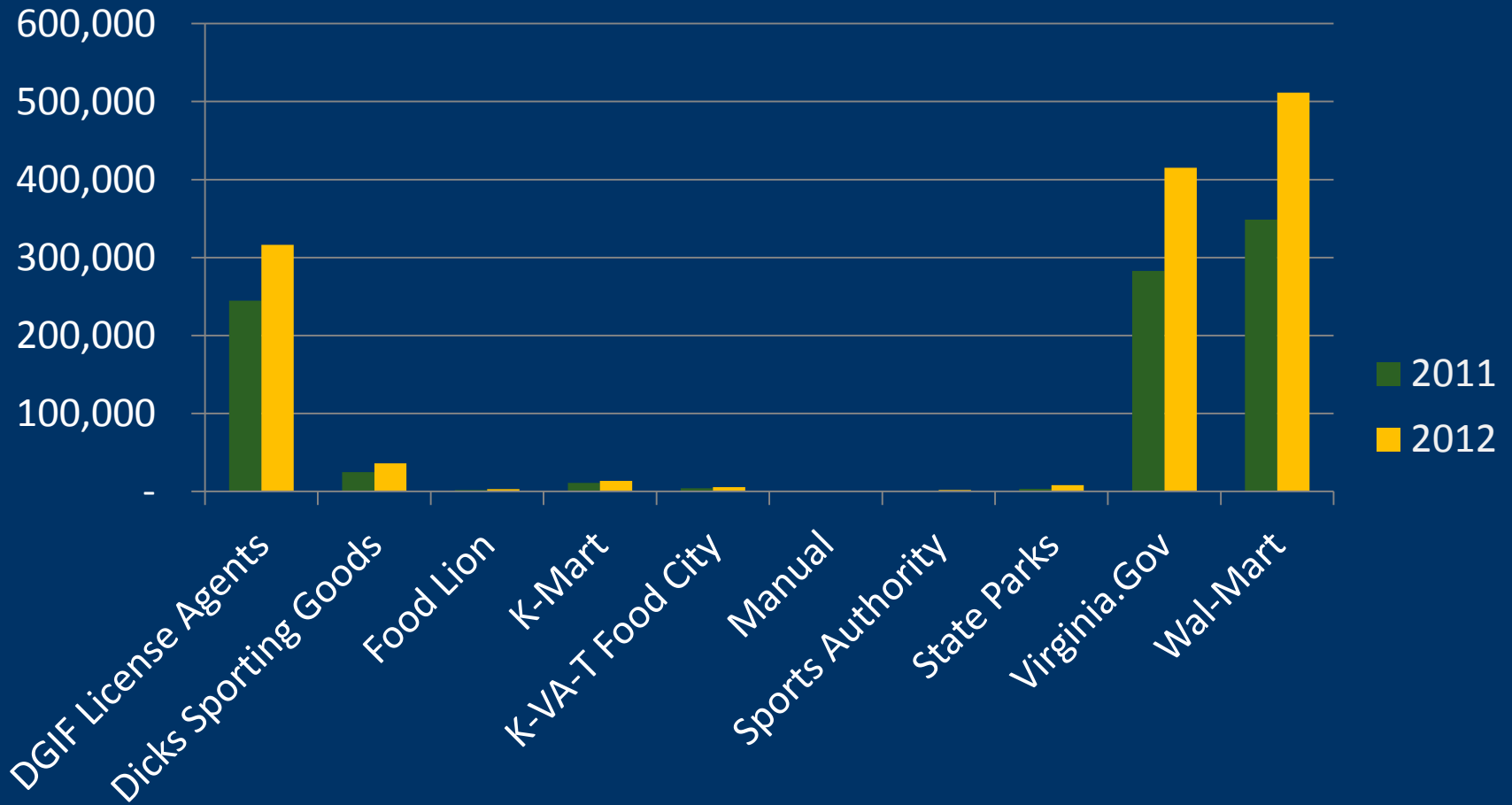
# Fishing Specialty - Trout



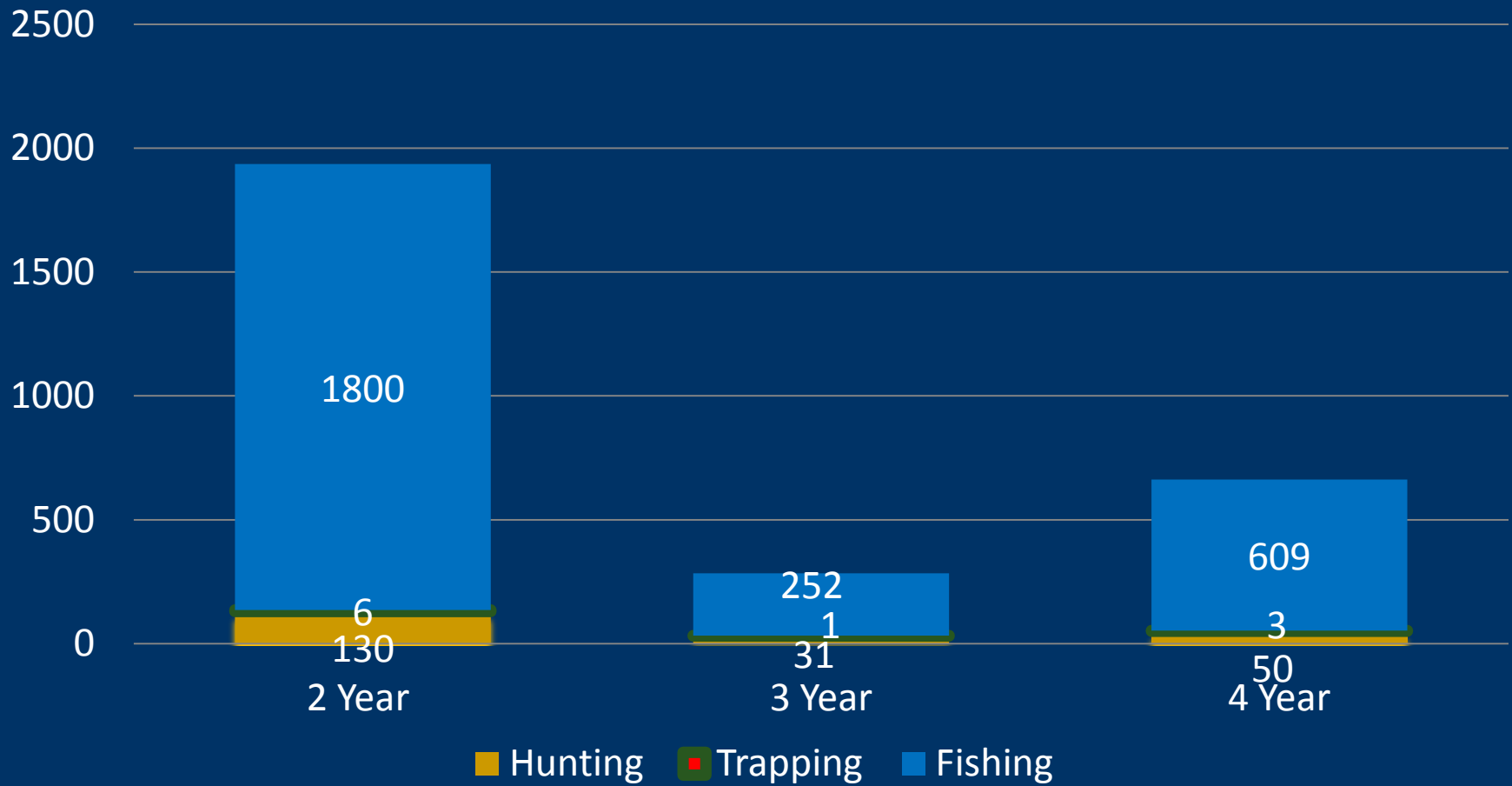
# Boat Registrations and Titling



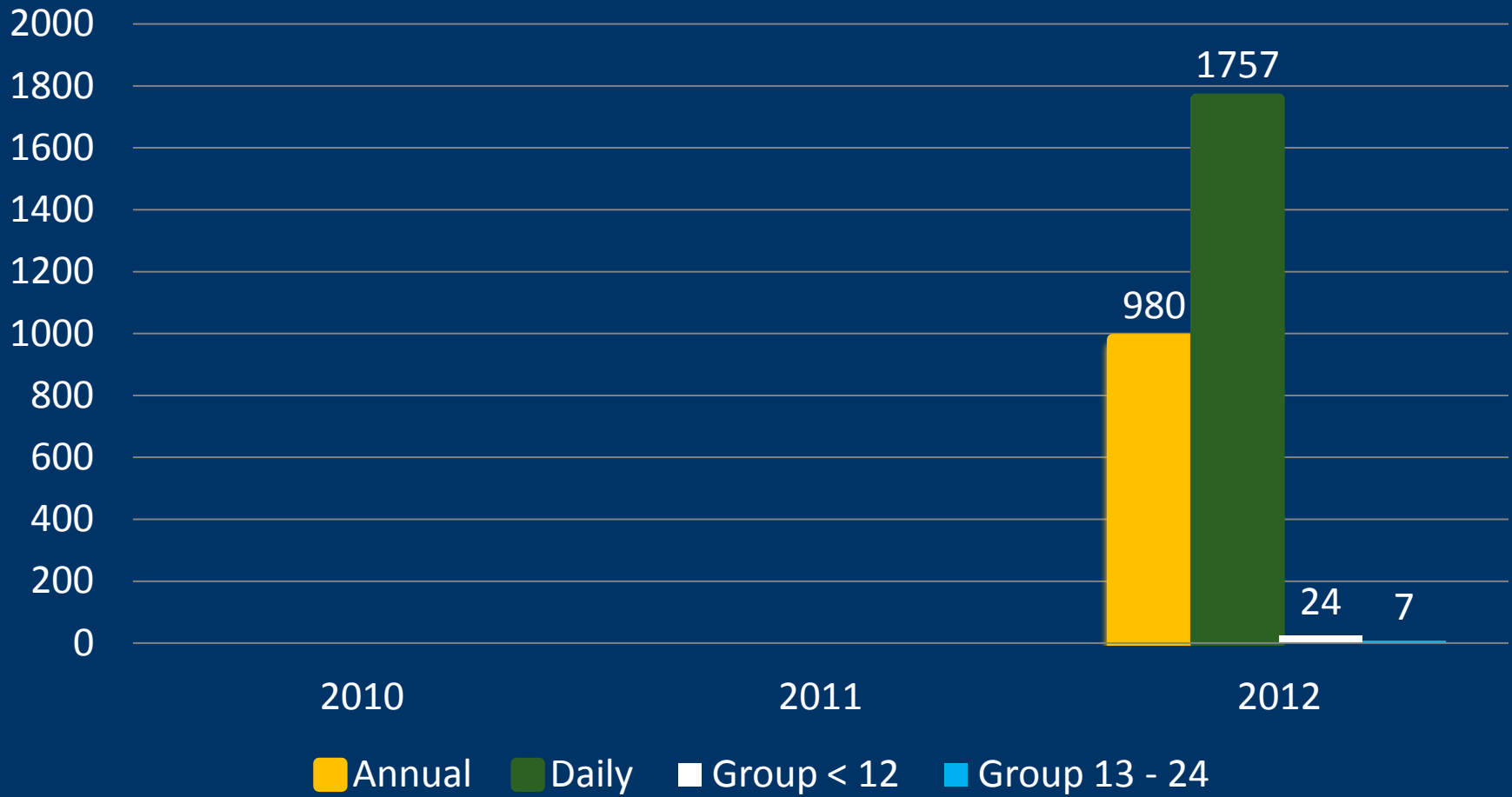
# Sales by Method



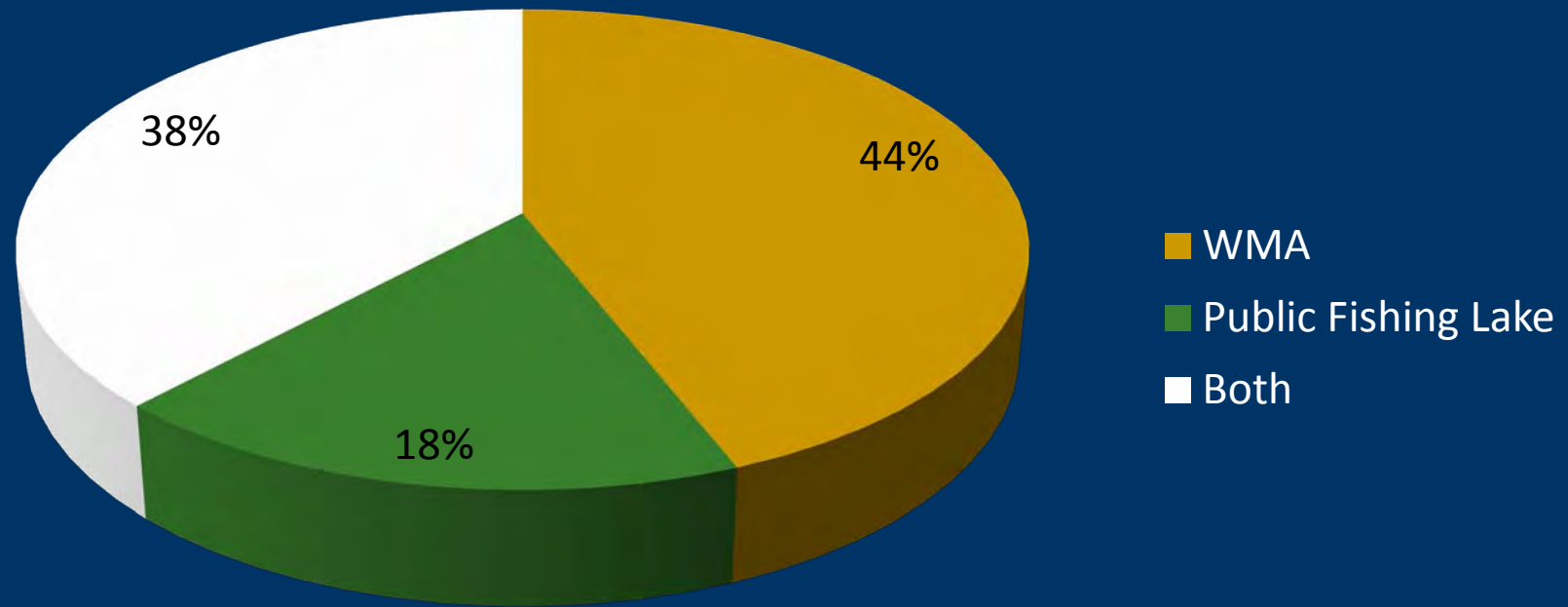
# 2012 Multi-Year License Sales



# WMA Access Permits



# WMA Access Permits – Principal Uses



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# FY 2012

# Agency Revenue Collections

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# FY 2012 Net Revenue Collections

## State Classification

	FY 2011 \$ in thousands	FY 2012 \$ in thousands	% change
Rights & Privileges	\$ 26,202	\$ 30,480	16.3%
Sales of Property	\$ 682	\$ 900	32%
Donations	\$ 699	\$ 381	(45.5)%
Interest, Div, Rent	\$ 416	\$ 411	(1.2)%
Forfeitures, Fines & Penalties	\$ 129	\$ 110	(14.7)%
Federal Grants & Contracts	\$ 19,882	\$ 16,718	(15.9)%
Other	\$ 1,327	\$ 714	(46.2)%
<b>TOTAL</b>	<b>\$ 49,338</b>	<b>\$ 49,714</b>	<b>0.8%</b>



# FY 2012 Revenue – Selected Licenses & Permits

	FY 2011 \$ in thousands	FY 2012 \$ in thousands	% change
Hunting	\$ 12,755	\$ 14,898	16.8%
Angling	\$ 7,890	\$ 9,858	24.9%
Trapping	\$ 39	\$ 52	33.3%
Lifetime	\$ 759	\$ 1,010	33.1%
National Forest	\$ 299	\$ 443	48.1%
<b>SUBTOTAL</b>	<b>\$ 21,742</b>	<b>\$ 26,261</b>	<b>20.8%</b>

# FY 2012 Federal Revenue – Operating

	FY 2011 \$ in thousands	FY 2012 \$ in thousands	% change
Wildlife Restoration (PR)	\$ 10,838	\$ 6,720	(38.0)%
Fish Restoration (DJ)	\$ 4,011	\$ 4,177	4.1%
Boating Safety (WB)	\$ 1,837	\$ 1,948	6.0%
State Wildlife Grant (SWG)	\$ 1,491	\$ 1,516	1.7%
Endangered Species	\$ 779	\$ 128	(83.6)%
Other Federal sources	\$ 943	\$ 2,211	134.5%
<b>SUBTOTAL</b>	<b>\$ 19,899</b>	<b>\$ 16,700</b>	<b>(16.1)%</b>

# FY 2012 Revenue – Boat Registration / Titling

	FY 2011 \$ in thousands	FY 2012 \$ in thousands	% change
Motorboat Registration	\$ 2,671	\$ 2,862	7.2%
Watercraft Titles	\$ 202	\$ 231	14.4%
Other (Dealer Licensing, etc.)	\$ 622	\$ 0	(100)%
Interest earnings	\$ 0	\$ 17	100%
<b>SUBTOTAL</b>	<b>\$ 3,495</b>	<b>\$ 3,110</b>	<b>(11.0%)</b>

# FY 2012 Revenue – Other Sources

	FY 2011 \$ in thousands	FY 2012 \$ in thousands	% change
Publication sales	\$ 379	\$ 476	25.6%
Wildlife license plates	\$ 368	\$ 369	0.2%
State Duck Stamps	\$ 204	\$ 202	(1.0%)
Non-game donations	\$ 606	\$ 301	(50.3%)
Interest earnings	\$ 352	\$ 319	(9.4%)
Other	\$ 1,700	\$ 2,402	41.3%
<b>SUBTOTAL</b>	<b>\$ 3,609</b>	<b>\$ 4,069</b>	<b>12.7%</b>

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# FY 2012 Agency Operating Budget Summary

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# FY 2012 Organizational Changes

Division	Functional Transfers
Administration	<ul style="list-style-type: none"><li>- Board Operations</li><li>- Human Resources</li></ul>
Planning & Finance	<ul style="list-style-type: none"><li>+ Planning</li><li>+ Legislation / Regulations / FOIA</li><li>- Information Technology</li></ul>
Law Enforcement	<ul style="list-style-type: none"><li>Regional Consolidation</li><li>+ Boating Education</li></ul>
Outreach	<ul style="list-style-type: none"><li>- Planning / Legislation / FOIA</li><li>- Permitting</li><li>- Boating Education</li></ul>
Infrastructure	<ul style="list-style-type: none"><li>- Boat ramp maintenance functions</li><li>+ Information Technology</li></ul>
Bureau of Wildlife Resources	<ul style="list-style-type: none"><li>Regional Consolidation</li><li>+ Boat ramp maintenance functions</li><li>+ Permitting</li></ul>

# FY 2012 Legislated

## Appropriations

Chapter 890 Approved May 2, 2011

(\$ in thousands)

PROGRAM ACTIVITY	Chapter 890 FY 2012	Special Revenue	Federal Funds
Wildlife & Fisheries Mgmt	\$ 40,582	\$ 30,638	\$ 9,943
Boating Safety & Regs	\$ 8,458	\$ 6,365	\$ 2,093
Admin & Support Services	\$ 6,203	\$ 6,178	\$ 25
<b>SUBTOTAL</b>	<b>\$ 55,243</b>	<b>\$ 43,182</b>	<b>\$ 12,061</b>

# Q4 Expenses - Category Comparison

(\$ in thousands)

FY 2011 4Q	FY 2012 4Q	% Change	ITEM	FY 2011 YTD	FY 2012 YTD	% Change
6,158	6,655	8.1%	Personal Services	32,127	31,901	(0.7%)
2,254	3,295	46.2%	Contractual Services	8,712	10,680	22.6%
1,683	1,489	(11.5%)	Supplies & Materials	4,816	5,920	22.9%
51	105	105.9%	Transfer Payments	207	192	(7.2%)
284	344	21.1%	Continuous Charges	1,625	1,809	11.3%
618	931	6%	Property & Improvement	10,478	2,614	(75.1%)
1,040	1,154	11.0%	Equipment	3,268	2,322	(29.0%)
557	4	(99.3%)	Plant & Improvement	560	14	(97.5%)
<b>12,645</b>	<b>13,977</b>	<b>10.53%</b>	<b>TOTAL</b>	<b>61,793</b>	<b>55,452</b>	<b>(10.26%)</b>

Unaudited data





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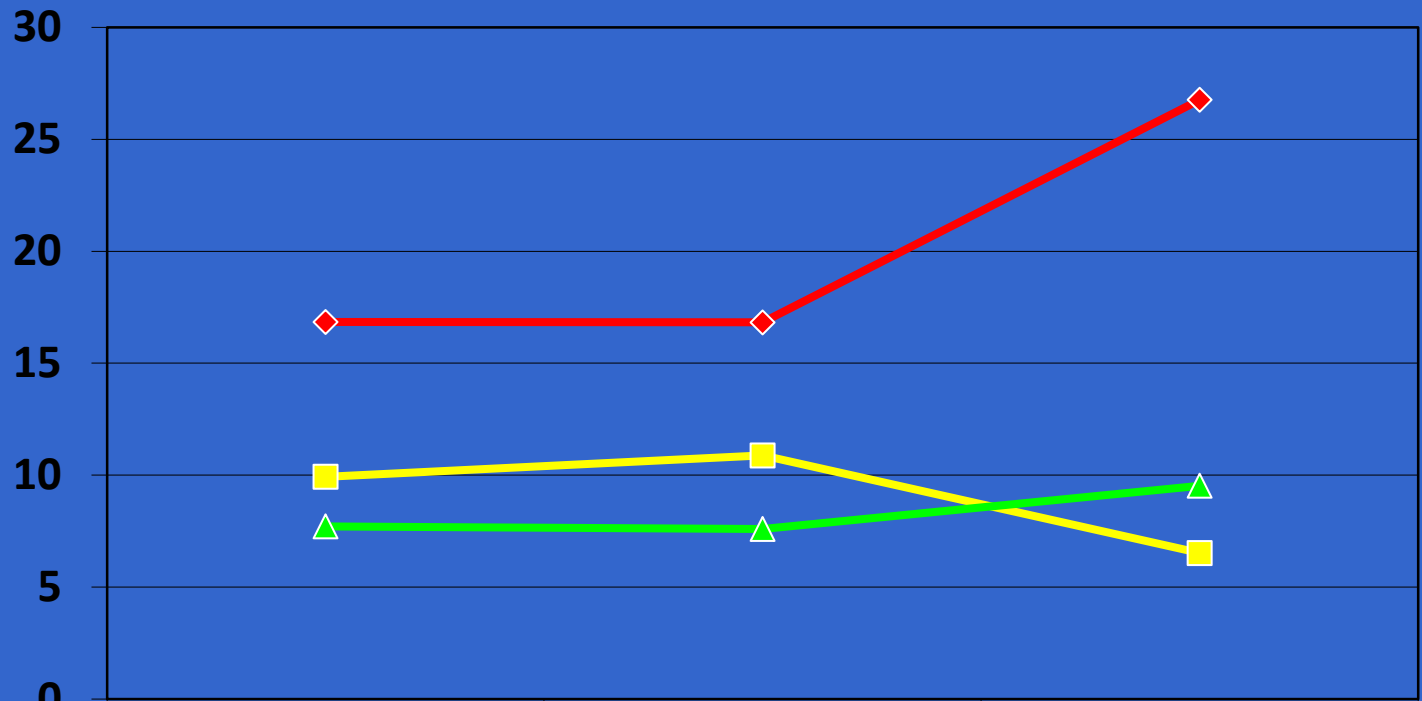
# FY 2012 Cash Management

## Selected Fund Balances

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# Selected Funds Cash Balances (in thousands)



	FY 2010	FY 2011	FY 2012
◆ Game Protection	16.84	16.821	26.765
■ Boat	9.93	10.88	6.521
▲ Lifetime License	7.715	7.599	9.531

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# FY 2012 Agency Capital Budget Accomplishments

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# FY 2012 Capital Budget — Spend Category

	Budget \$ in thousands	Actual \$ in thousands	% Change
Maintenance Reserve	\$ 1,121	\$ 882	(21.3%)
Boating Access	\$ 1,315	\$ 310	(76.4%)
Dam Safety	\$ 1,484	\$ 1,394	(6.1%)
Acquisition	\$ 1,094	\$ 7	(99.3%)
Improvements	\$ 1,338	\$ 823	(38.5%)
New Central HQ	\$ 400	\$ 265	(33.8%)
Green Energy	\$ 212	\$ 205	(3.3%)
<b>SUBTOTAL</b>	<b>\$ 6,964</b>	<b>\$ 3,886</b>	<b>(44.2%)</b>

# Capital Projects Overview

# Questions?

- T. Gelozin

Director of Planning and Finance

804-367-2387

[thomas.gelozin@dgif.virginia.gov](mailto:thomas.gelozin@dgif.virginia.gov)

**DEPARTMENT OF GAME AND INLAND FISHERIES**

**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Board of Game and Inland Fisheries    **PRESENTER:** Mr. Reed

**DATE SUBMITTED:** August 7, 2012                      **SUBMITTED BY:** B. Drewery

**SUBJECT:**

Request for Closed Meeting

**BACKGROUND:**

A closed session may be held for personnel, land and/or perhaps legal matters during the lunch break.

**RECOMMENDATIONS:**

Board action may be necessary if closed session topics require an action of the Board. If so, an appropriate motion will be prepared by staff for the Board's consideration.

**DEPARTMENT OF GAME AND INLAND FISHERIES**  
**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Director's Office

**PRESENTER:** Mr. Duncan

**DATE SUBMITTED:** August 7, 2012

**SUBMITTED BY:** DGIF Staff

**SUBJECT:**

Director's Report Items

**BACKGROUND:**

The Director will report on the current activities of the Agency.

**RECOMMENDATIONS:**

If Board action is required on discussion topics, an appropriate motion will be provided.



**DEPARTMENT OF GAME AND INLAND FISHERIES**  
**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Board of Game and Inland Fisheries

**PRESENTER:** Mr. Reed

**DATE SUBMITTED:** August 7, 2012

**SUBMITTED BY:** B. Drewery

**SUBJECT:**

Chairman's Remarks

**BACKGROUND:**

**RECOMMENDATIONS:**

**DEPARTMENT OF GAME AND INLAND FISHERIES**  
**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Board of Game and Inland Fisheries      **PRESENTER:** Mr. Clarke

**DATE SUBMITTED:** August 7, 2012      **SUBMITTED BY:** B. Drewery

**SUBJECT:**

Additional Business/Comments

**BACKGROUND:**

**RECOMMENDATIONS:**

The Chairman will call for any additional business/comments from the Board and Director.

**DEPARTMENT OF GAME AND INLAND FISHERIES**  
**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Director's Office

**PRESENTER:** Mr. Reed

**DATE SUBMITTED:** August 7, 2012

**SUBMITTED BY:** B. Drewery

**SUBJECT:**

Next Meeting Date – October 18, 2012

**BACKGROUND:**

**RECOMMENDATIONS:**

The Chairman will announce the next meeting date of October 18, 2012 beginning at 9:00am.

**DEPARTMENT OF GAME AND INLAND FISHERIES**

**BOARD MEETING AGENDA ITEMS**

**BOARD MEETING DATE:** August 14, 2012

**DIVISION:** Director's Office

**PRESENTER:** Mr. Reed

**DATE SUBMITTED:** August 7, 2012

**SUBMITTED BY:** B. Drewery

**SUBJECT:**

Adjournment

**BACKGROUND:**

**RECOMMENDATIONS:**

The Chairman will call for a motion to adjourn.