

Anadromous Fish of Virginia



Anadromous Fish of the James River

What are anadromous fish?

- Clupeidae : family of ray-finned fishes including herrings, shads, sardines, and menhadens
 - Alosa: river herring genus
- Moronidae : temperate bass family
 - Morone: genus of temperate basses native to the Atlantic Coast of North America





Alewife

*Alosa
pseudoharengus*

**200-300 mm TL (10-14")
Back grey-green/olive in life**

Regulations: Moratorium

- **Arrive in February; present through early April**
- **Body is lightly deeper than BLH; Much larger eye relative to body size than on BLH**
- **Peritoneum (gut lining) is pink and/or pink with very few black pepper spots**
- **Mouth: upper and lower jaw generally even (supraterminal mouth)**





Blueback Herring

Alosa aestivalis

150-250 mm TL (6-12")
Back bluish in life

Regulations: Moratorium

**A native Sea
Lamprey sub-adult
was attached to this
fish.**

- **Arrive in late March ; present through May**
- **Body not as deep as Alewife; Much smaller eye relative to body size than on Alewife**
- **Peritoneum (gut lining) heavily pepper spotted to black**
- **Mouth: upper and lower jaws are generally even (supraterminal mouth)**



Spawning
temperature :
59 to 63
degrees
Fahrenheit

Spawning
temperature:
69 to 75 degrees
Fahrenheit



Alewife

Blueback Herring





American shad

Alosa sapidissima

Typically 14-22"

Back purplish in life

Regulations: Moratorium

- Can arrive as early as late February; present into June; typically last alosine to be found toward end of season
- Mouth: upper and lower jaws are even (terminal mouth)
- Very symmetrical top to bottom





American
shad





Hickory shad

Alosa mediocris

Typically 10 – 19”

Mostly silvery

Regulations: none in Chesapeake,
Chowan drainage : 10 per day no
length limit

- Can arrive as early as late February; present into May
- Mouth: lower jaw extends much farther than upper jaw (superior mouth)
- Less symmetrical top to bottom than Am. Shad (lower body margin more curved than upper body margin); black pigment spot on each scale





Hickory
shad





American
Shad

Hickory
Shad





American
Shad

Hickory
Shad



American Shad
Terminal Mouth



Peak spawning
occurs at 65
degrees
Fahrenheit

Hickory Shad
Superior Mouth



Peak
spawning
occurs at 61
degrees
Fahrenheit







Species	Dates	Mouth	Body Feature	Size	Color/Other
Alewife	Feb – mid April	Supraterminal/steep rise of lower jaw in mouth	Deeper body Eye diam. > snout length	250-350 mm TL (10-14”)	Grey-green back “olive”
Blueback herring	April to early June	Supraterminal/steep rise of lower jaw in mouth	Sleeker body Eye diam. ≤ snout length	150-300 mm TL (6-12”)	Bluish back
Hickory shad	late Feb – May	Superior (lower jaw protrudes well beyond upper); gradual slope of lower jaw in mouth	More rounded belly compared to back	385-450 mm TL (15-18”)	Black spot on scales Pale patch on tongue
American shad	Late Feb – early June	Terminal (lower jaw equal to upper jaw) Gradual slope of lower jaw in mouth	Symmetrical top to bottom	350-550 mm TL (14-22”)	Purplish back Lacking pale tongue patch





All four Alosines from the tidal Rappahannock River. American shad (top left), blueback herring (top right), alewife (bottom left), hickory shad (bottom right). Photo by Alan Weaver/DWR



Bay & Tributaries Regulations
Spring & Summer

May 16th – June 15th inclusive

- 1 fish per person daily
- Minimum size limit is 19”
- Maximum size limit is 24”

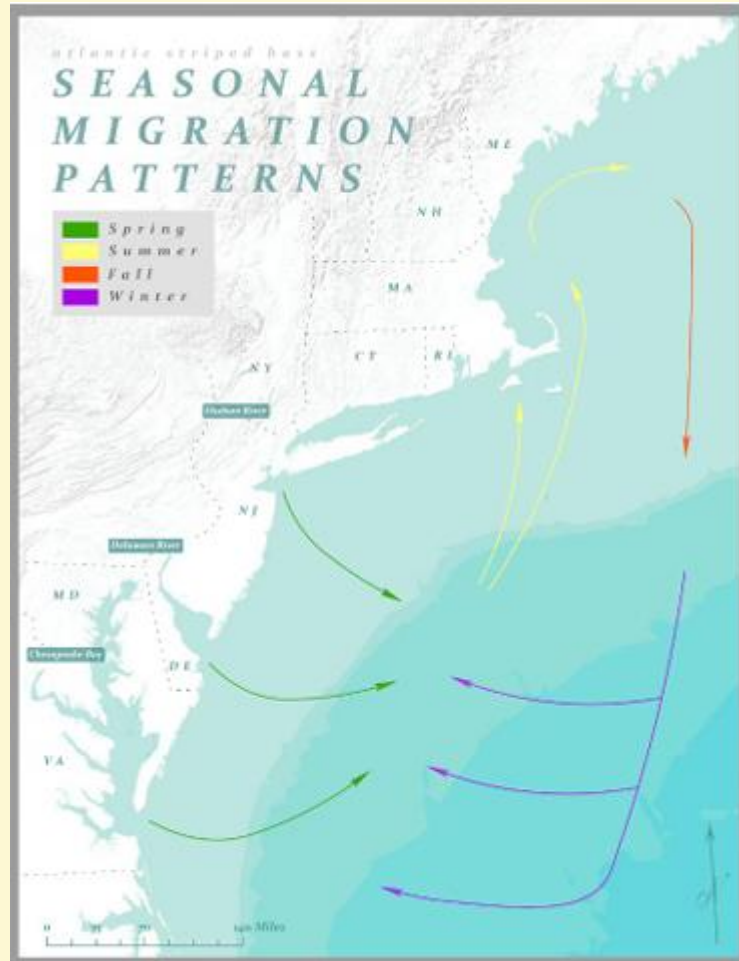


Striped Bass – *Morone saxatilis*

- Arrives in the James River in late February and typically leaves by early June
- Temperate bass – pelagic predator
- Streamlined, elongate body
- Coloration: shades of dark olive above through silvery sides to a white belly
- 7-8 prominent black stripes from edge of gill plate to caudal fin
- Broadcast Spawning takes place when water temperatures are 55 to 60 degrees Fahrenheit
 - Males sexually mature at 2-4 years old
 - Females sexually mature at 4-8 years old
 - 12 lb female can produce ~ 850,000 eggs while a 55 lb female can produce 4 million + eggs



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Management of Anadromous Species in Virginia



An Interstate Compact – Joining of forces to manage shared migratory fishery resources

- State Representation
- Federal Representation
- Recreational and Commercial Representation

Each state has 3 commissioners

- 1) the director of the state's marine fisheries
- 2) A state legislator
- 3) Governor appointee to represent stakeholder interests





Tactics for Shad Fishing on the James

Fly Rod

- 6 wt – 8 wt fly rod
- 250 grain to 350 grain full sinking line
- Fish the tides
- Short leader tapered to 0x – 2x
- Bright colors: pinks, chartreuse, orange, white, red

Spinning Rod

- Medium light spinning rod - 8lb test line
- Shad darts and spoons
- Double dart rigs or darts to spoons
- Depending on flows and depth you can use a Carolina rig with 1/4 - 1/2 oz sliding weight



Tactics for Striped Bass Fishing on the James

Fly Rod

- 6 wt – 9 wt fly rod
- Floating, 250 grain to 350 grain full sinking line
- Fish the tides
- Short leader tapered to 20 lb or heavier in early season
- Clousers, Half and Halfs, Murdich Minnow
- Poppers in low light scenarios

Spinning Rod

- 7' - 9' Medium to Heavy-Fast Action
- 20 lb leader to 40 lb in early season
- Swimbaits, jerkbaits, lipless crankbaits, poppers
 - Size of bait based on time of season and intended size of target





If you don't have a valid saltwater fishing license, a free FIP registration is required for anglers fishing for anadromous fish in tidal freshwater.



Questions?



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