Atlantic Salmon Nearshore Marine Workshop

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Here the point is that these fishes overlap spatially & temporally

Note that I have not included striped bass in this diagram because they will spend a good portion of their life in the estuaries, and move freely between free and salt water, usually following food (these fish!). Stripers spawn in July.

Notes:
Onset of spawning migrations related to temperature & flow & moonlight(?)
Onset of spawning related to temperature
Blueback YOY highly tolerant of salinity (up to 29ppt)
Interactions with other diadromous species in the nearshore  
(Saunders et al. 2006)

Prey buffering
- alewife adults buffer exiting smolts
- shad adults buffer exiting adults

Prey for salmon
- smelt as prey for exiting adults
- if post-smolts stay inshore, YOY river herring as prey
- fundamental changes in nearshore food web structure?

These are two of four mechanisms proposed by Saunders et al. 2006  
38 towns have harvest rights
~ 25 towns have active harvests

Source: Maine DMR
Alewives as prey in the nearshore

Methods 2006-2008
• Hook & line
• Targeted Cod, Pollack, Mackerel, Sculpin
• May/June, July/August, Sept/Oct
Nearshore feeding frenzy

Oct 2007 Damariscotta River Mouth

Alewives found in the diets of:
- Cod
- Mackerel
- Pollack
Midcoast Maine alewife runs

- No fish large enough to eat adult alewives in the spring
- Juveniles potentially important source of high-quality food in critical time of year
- In areas with multiple runs, juveniles may be a steady food supply in late summer & fall
Hypothesized alterations affecting diadromous species:
- Pelagic to benthic, based on transfer of Atlantic herring (and river herring) from the water column to lobster traps.
- Fewer or different predators in the near shore (fewer ground fish, more striped bass?).