

Richard Bulavinetz

PFBC

2008



From: Shiels, Andrew [ashiels@state.pa.us]
Sent: Tuesday, July 22, 2008 11:18 AM
To: Richard Bulavinetz
Subject: RE: Stocking Near Three Mile island (TMI)

Rich,

Eels have not been stocked upstream of or in the vicinity of TMI since 1980. Development of an eel restoration plan through the Susquehanna River Anadromous Fish Restoration Committee is in its early stages. Elvers could be released into the middle Susquehanna River as early as next year.

Low shad numbers are due to coastwide declines in shad and river herring populations combined with several years of poor hatchery and wild juvenile survival due to flood events at critical periods and lower than normal hatchery outputs. Walleyes and other predators are not believed to be an issue regarding shad numbers in the Susquehanna River. Fish passage effectiveness upstream and downstream determines shad numbers once they reach the river.

Fish passage needs to be evaluated (and likely improved) at Conowingo, and improved at Holtwood and York Haven. Safe Harbor produces American shad passage rates that average around 75% which is the minimum needed for the other facilities.

Andy

From: Richard Bulavinetz [mailto:Richard.Bulavinetz@nrc.gov]
Sent: Monday, July 21, 2008 1:59 PM
To: Shiels, Andrew
Subject: Stocking Near Three Mile island (TMI)

Andy:

I just got off the phone with Mike Kaufmann a few minutes ago, and he suggested I speak with you re: the above. Mike mentioned that PA may be stocking American eel elvers in the near future. I'm just trying to get a good idea of what's been stocked/what's being stocked in the vicinity of TMI, so I can give a better characterization of the aquatic resources for that area in a section of my Environmental Impact Statement. I went on the PFBC website for current/past stocking in Dauphin, Lancaster & York Co's on the SUSquehanna. Another question - could any of the low #'s of shad be due in part to predation by walleye or other predators? I've got the shad passage data up thru 2008 for the 4 dams, but was wondering if any predation data is out there. A phone call would be great, but I need info in writing for "personal communications" (nothing formal-an e-mail works). I cannot cite a phone call as a reference.

Thanks,

Rich

Richard E. Bulavinetz

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Rockville, MD 20852
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P.FBC 2008

Richard Bulavinetz

Subject: FW: Stocking Near Three Mile island (TMI)

From: Hendricks, Michael [mailto:mihendrick@state.pa.us]

Sent: Tuesday, July 22, 2008 2:43 PM

To: Richard Bulavinetz

Cc: Shiels, Andrew

Subject: RE: Stocking Near Three Mile island (TMI)

Rich: Below is a section of the American shad account from the draft amendment 2 to the ASMFC American shad and river herring management plan (I happen to be reviewing it at this very moment). It cites Johnson and Ringler 1998 who noted that mortality at the stocking site was less than 2%. This data was derived from the same study you cited (Johnson and Dropkin). In addition, we have data from our ongoing cohort analysis that shows that 1 of every 300 larvae we stock survives to return to Conowingo Dam as an adult. Predation on larvae cannot be very high to achieve that kind of survival.

Competition and Predation

American shad eggs and larvae are preyed upon primarily by American eels (*Anguilla rostrata*) and striped bass (*Morone saxatilis*) (Mansueti and Kolb 1953; Walburg and Nichols 1967; Facey *et al.* 1986), although they may be preyed upon by any fish that is large enough to consume them (McPhee 2002). According to Johnson and Ringler (1998), American shad larvae that were stocked in the Susquehanna River, Pennsylvania, experienced the lowest percentage mortality at releases of 400,000 to 700,00 larvae. A high rate of larval mortality at releases up to 400,000 may have been due to depensatory mechanisms, and releases above 700,000 may have resulted in increased predator aggregation at the site. Although some individual predators consumed up to 900 American shad larvae, mortality of larvae at the stocking site was usually less than 2% (an insignificant source of mortality) (Johnson and Ringler 1998).

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