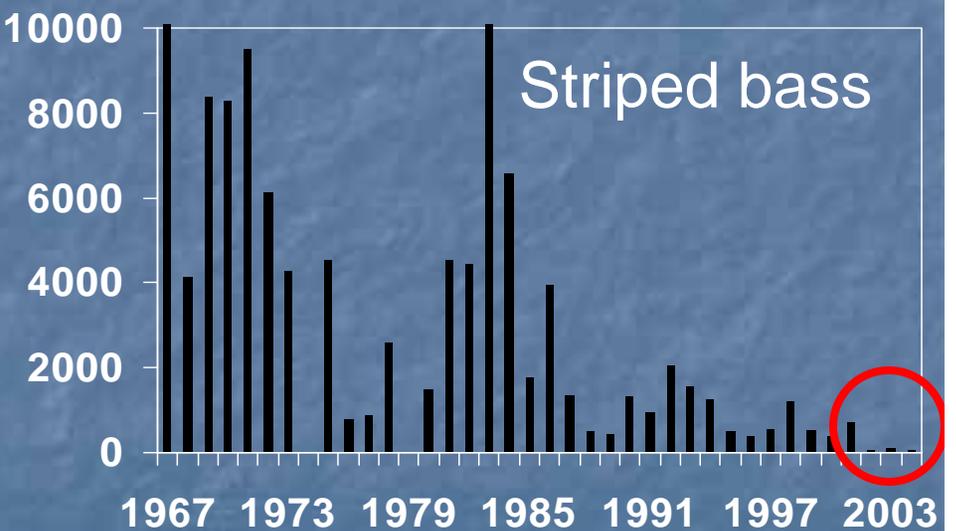
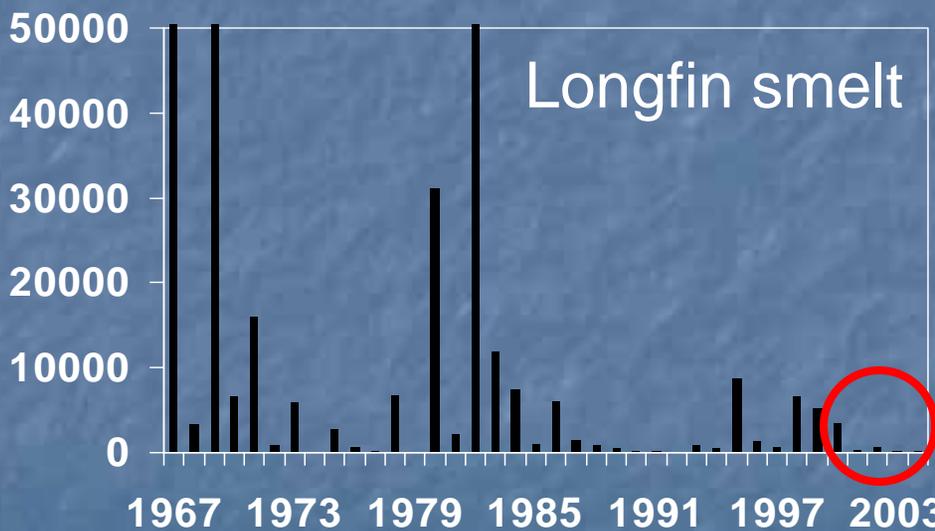
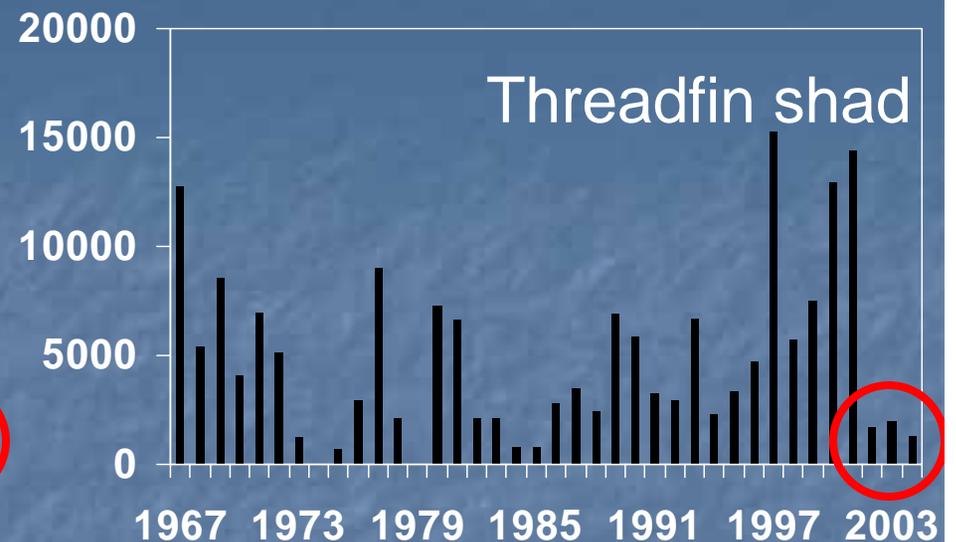
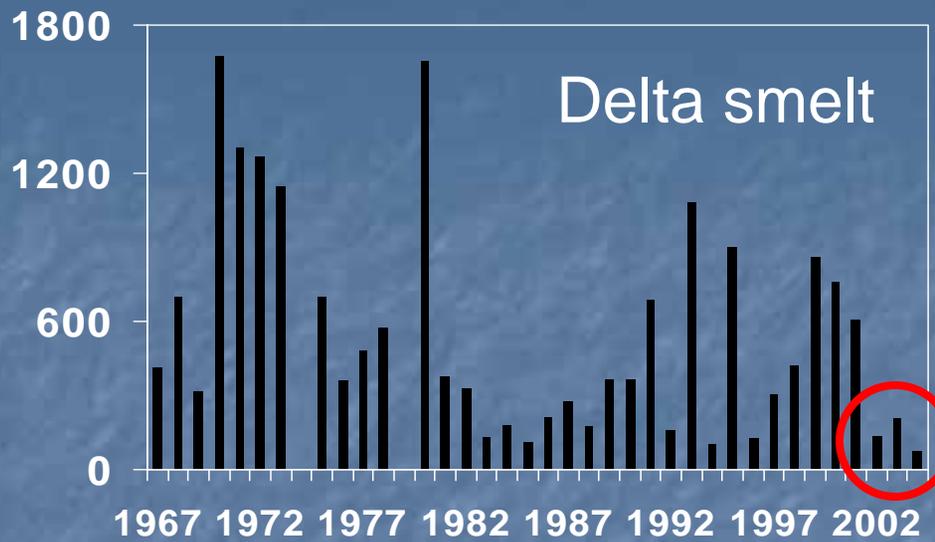


Interagency Ecological Program Workplan for Pelagic Species

Dr. Perry L. Herrgesell
Department of Fish and Game

Interagency Ecological Program

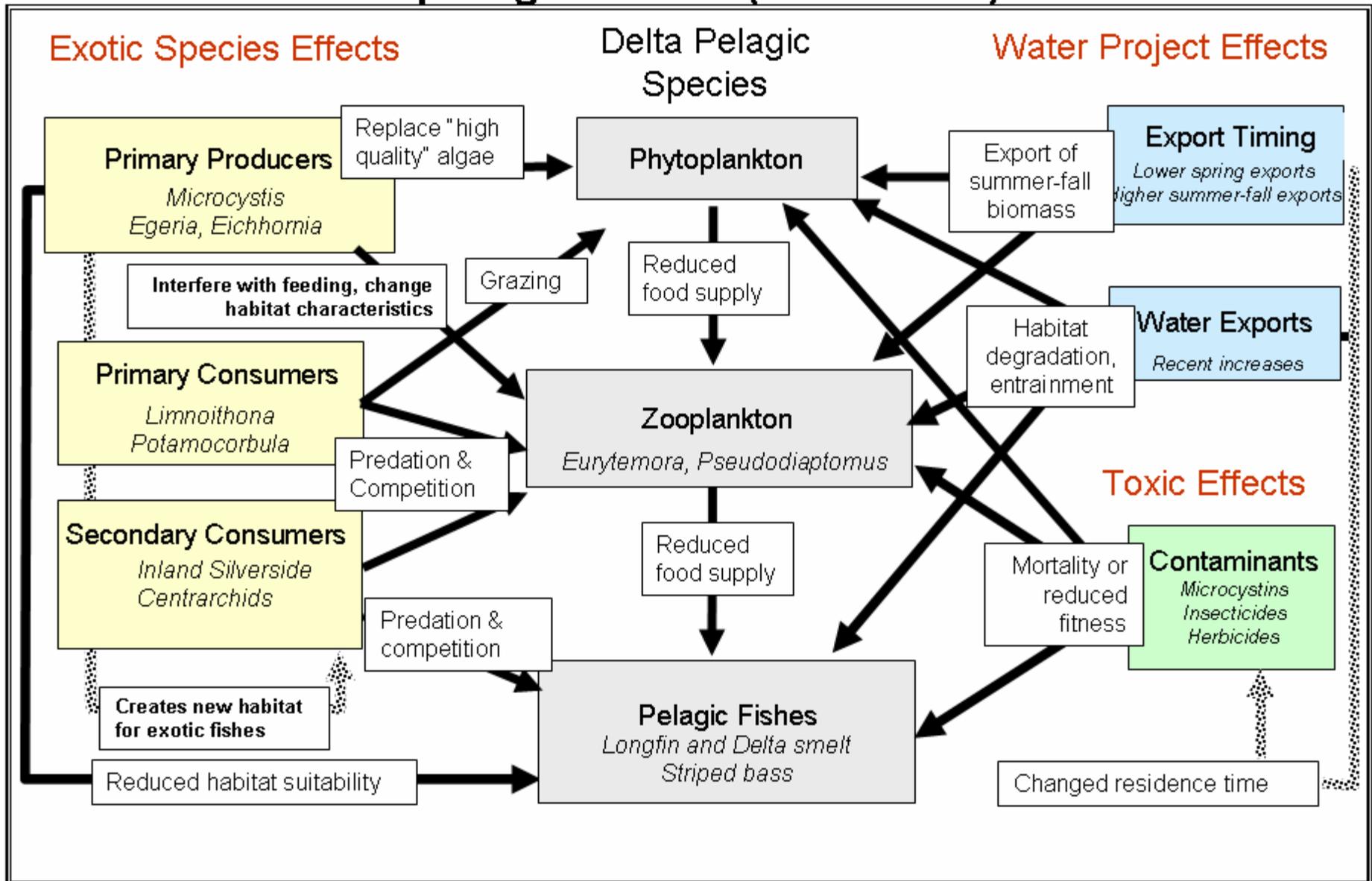
- Long-term monitoring program for SF estuary
- Nine member agencies
- Consistent methods and sites



Efforts to Date

- Formation of a multi-agency IEP working group (“G8”)
 - DFG, DWR, USBR, USEPA
- Trend analysis
 - Dr. Bryan Manly, Statistician.
 - Confirmation of both long-term and recent changes.
- Workplan development

Conceptual Model for step change in pelagic fishes (2002-2004)



Study Approach

- 2005 effort to screen the relative importance of the three potential factors.
- Adaptive actions.
- Redirection of IEP staff & contracts.
- Four components.
- Heavy redirection of IEP staff.
- Focus on delta smelt, striped bass, silverside, zooplankton.

Expanded Monitoring

- To identify problem areas & collect samples for laboratory analyses
- New effort in addition to core IEP sampling
 - Larval Fishes Survey
 - Summer Townet Survey
 - Fall Midwater Trawl
 - Adult Striped Bass
 - Additional Focused Sampling

Data Analyses

- Study to better describe population trends.
- Study to identify timing and location of problems.
 - Growth, survival, reproduction
- Study to determine if flow changes have decreased habitat area.
- Evaluate literature on key toxins.
 - Pyrethroids
 - Herbicides
 - Harmful algal blooms

New Studies

- Bioassays to localize timing and effects of toxins.
- Studies on three target fishes to evaluate timing and location of:
 - Toxic effects (histopathology)
 - Food limitation (diet, condition, growth)
 - Which “stocks” are affected (fish origin)
- Studies on timing and location of toxic algal blooms.

Ongoing Studies

- South delta hydrodynamics (IEP/CBDA).
- Particle tracking modeling (IEP)
- Studies to determine if the recent shift in exports has affected the base of the food web (CBDA-funded)

Next Steps

- Monitoring Already Underway
- Workplan Peer Review (April 2005)
- Workplan Revisions (late April 2005)
- Presentation to IEP Management Level Advisory Group (early-May 2005)
- IEP Directors Approval (mid-May 2005)
- Implementation of Remaining Elements (Jun-Oct 2005)
- Synthesis of Information (November 2005)
- 2006 Workplan (February 2006)