

The Future of Mitigation Hatcheries



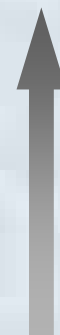
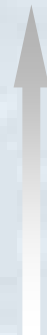
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In The Past

As Habitat



Hatcheries



Reality

- More than 90% of Chinook salmon and steelhead habitat originally available in the Columbia Basin has been lost or degraded (Brannon *et al.* 2002)

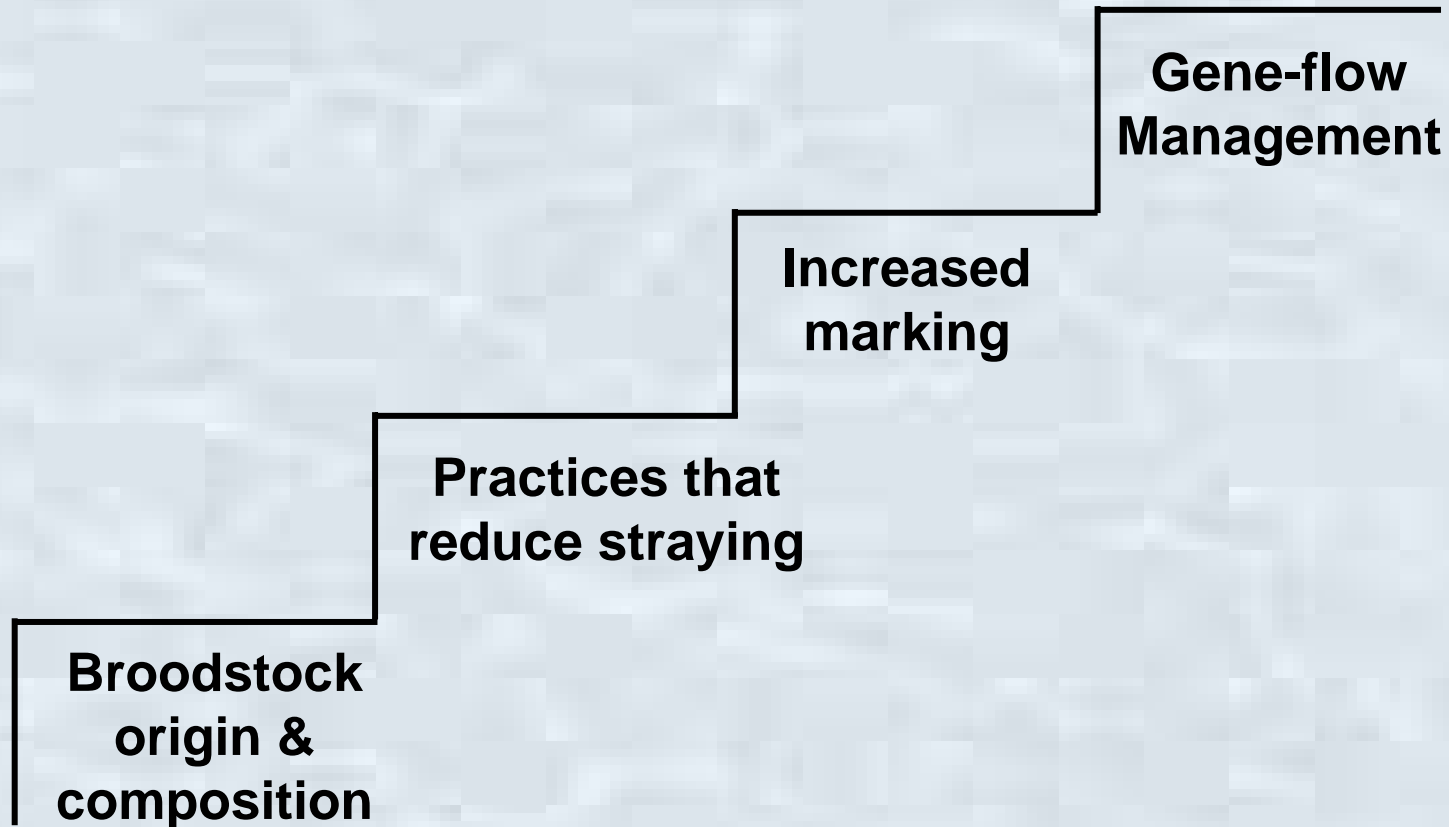


Status Quo

- More than 400 hatchery programs coast-wide.
- > 75% of recruits are hatchery-origin fish.
- The majority of remaining genetic resources often reside in hatchery programs.
- Some salmon would be extinct if not for hatchery programs.



But, Hatchery Reform Is Not a New Concept



Results

- Hatcheries made the top five limiting factors for 4 out of 16 ESA-protected ESUs and steelhead DPSs (NMFS 2005 Report to Congress, Pacific Coastal Salmon Recovery Fund, FY2000-2004).
- Concentrate on limiting factors and continue reforms to hatcheries.



In the Meantime, Continue the Reform Process

Artificial propagation:

- Should substitute for lost production.
- Can increase genetic resources and buy time until limiting factors are reduced (i.e., reduce short-term extinction risk).
- Team with reductions in limiting factors to promote viability and reduce long-term extinction risk.



Continue the Reform Process Started Years Ago

Key Reforms

- Better isolation of fish that are not intended to spawn naturally.
- Reduced straying.
- Supplementation programs must depend on the best broodstock and on the appropriate proportion of NOF.
- Supplementation programs



Continue the Reform Process Started Years Ago

Key Reforms (cont.)

- Implement M&E.
- Employ adaptive management.
- Invest in communication and public outreach.



In The Future

