

lamprey (lăm'prē) *n.*, *pl.* **-preys**.

An eellike primitive fish with a jawless sucking mouth.

-The American Heritage Dictionary

[ME f. OF lampreie f. med.L
lampreda: cf. LL lampetra perh.
f. L lambere **lick** + petra **stone**]

Lamprey Species and the Columbia River Basin Lamprey Technical Workgroup

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Objectives of this Presentation

- Review the lamprey species of the Columbia River Basin
 - General life cycle
 - North American distribution
 - Life history
 - Status
- Review the Columbia River Lamprey Technical Workgroup
 - Past
 - Present
 - Future
- Format of Workshop

Lamprey Species

- River lamprey
 - *Lampetra ayresi*
- Western brook lamprey
 - *L. richardsoni*
- Pacific lamprey
 - *L. tridentata*
- Other species in region
 - Miller Lake lamprey--*L. minima*
 - Kern brook lamprey--*L. hubbsi*
 - Pacific brook lamprey--*L. pacifica*
 - Klamath River lamprey--*L. similis*
 - Pit-Klamath brook lamprey--*L. lethophaga*
 - Dwarf Pacific lamprey
 - *L. folleti*



General Life Cycle Slide



Egg



Ammocoete



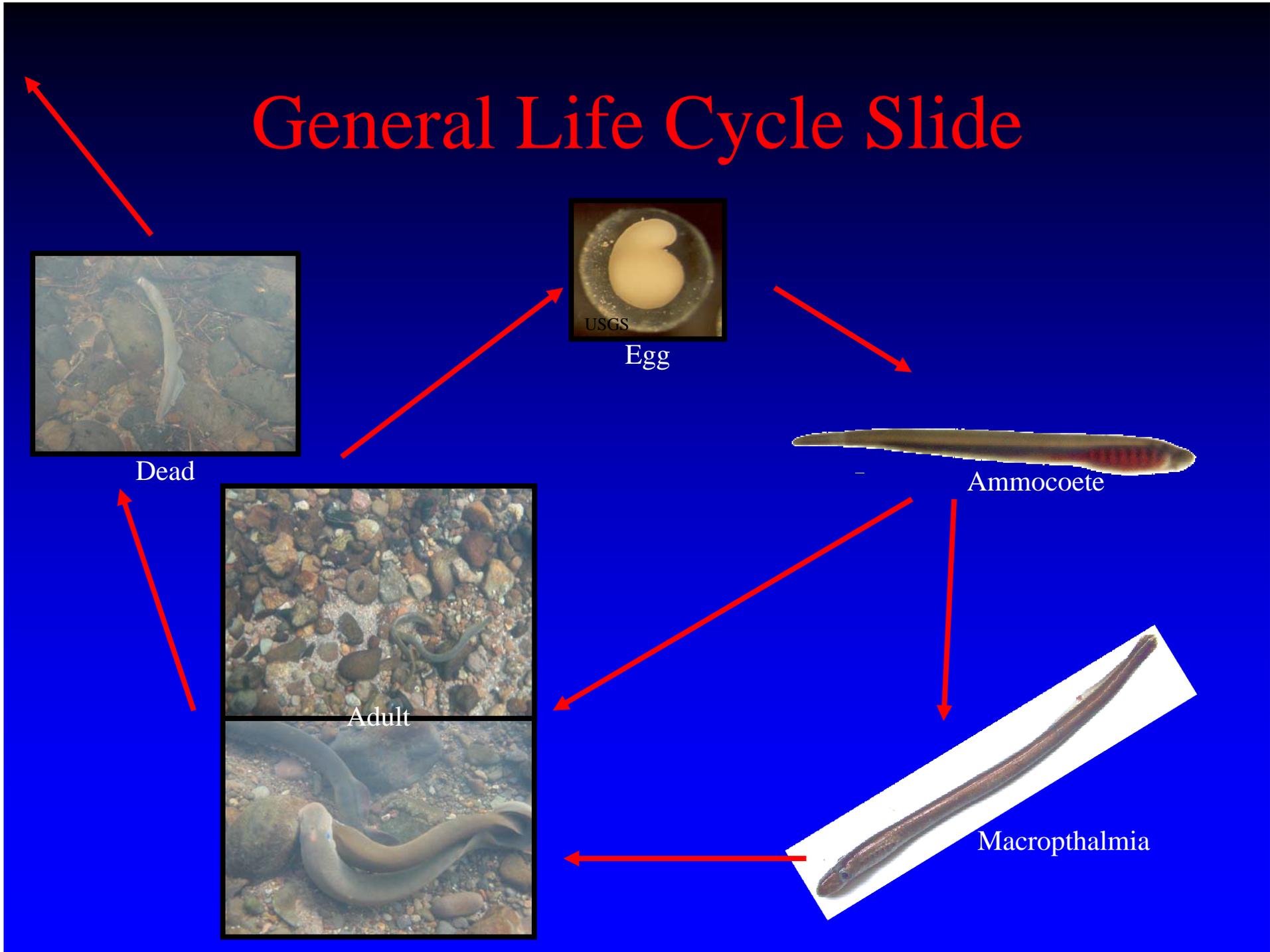
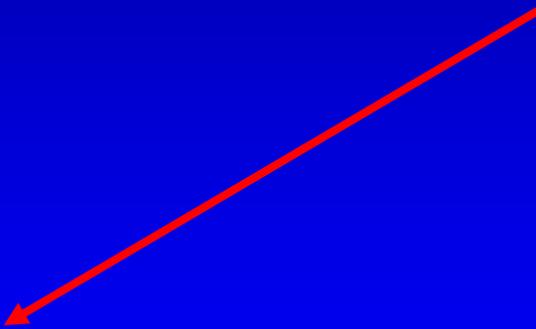
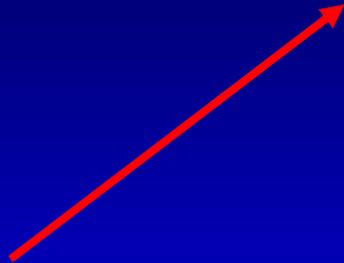
Macrophthalmia



Adult



Dead

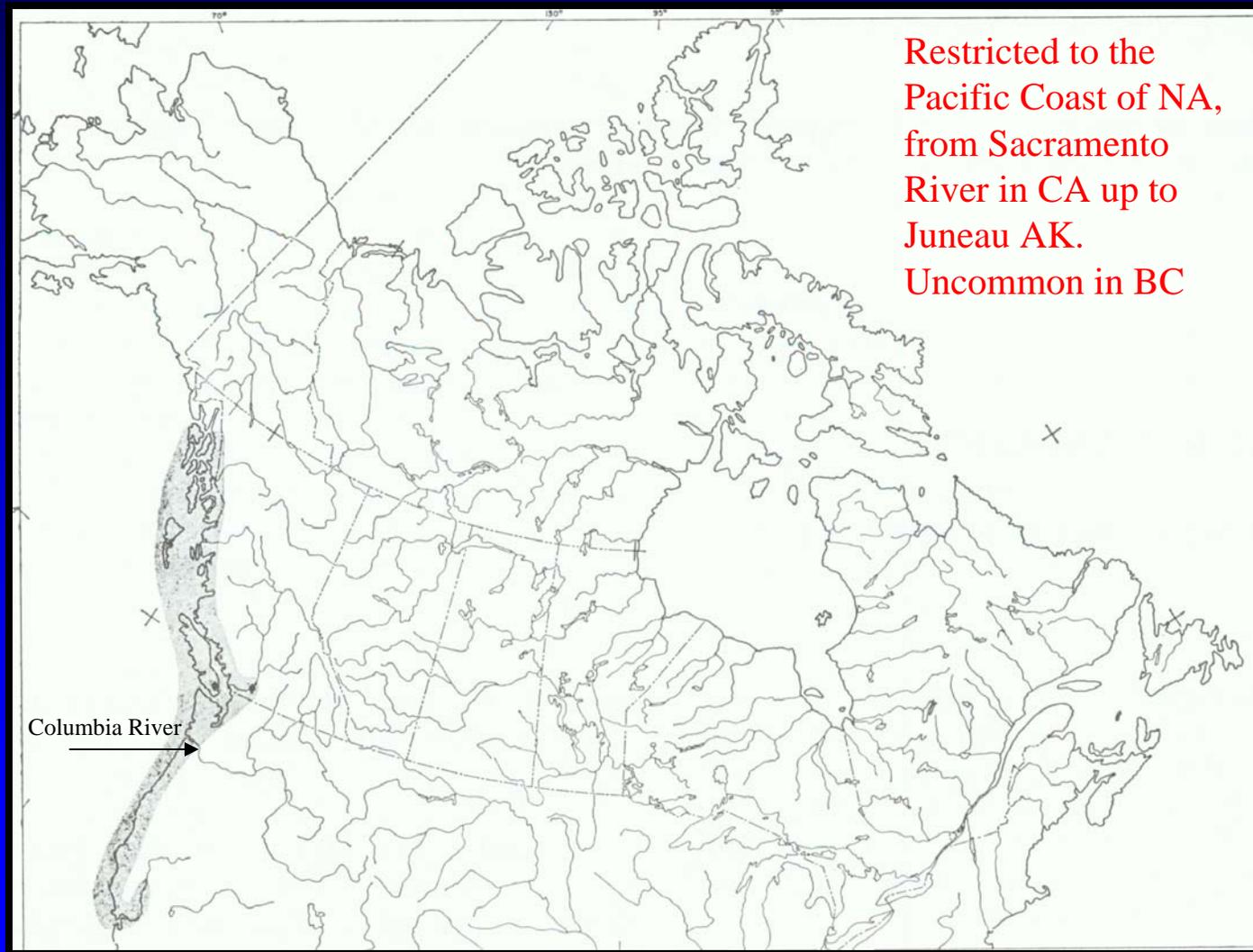


River Lamprey



Pisces Conservation LTD

River Lamprey

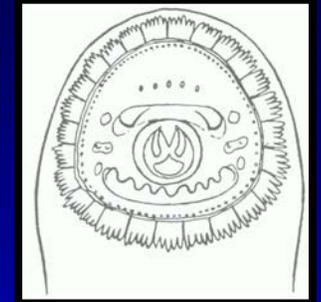
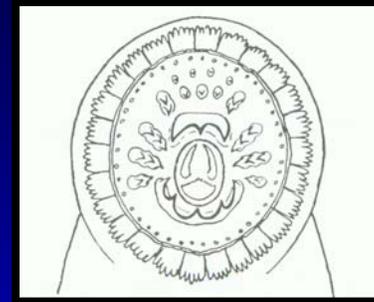
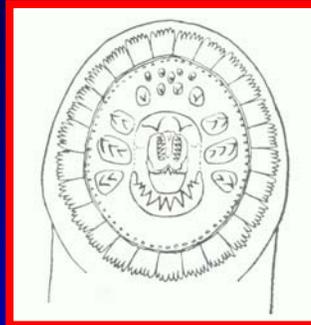


Restricted to the
Pacific Coast of NA,
from Sacramento
River in CA up to
Juneau AK.
Uncommon in BC

River Lamprey

- Life History

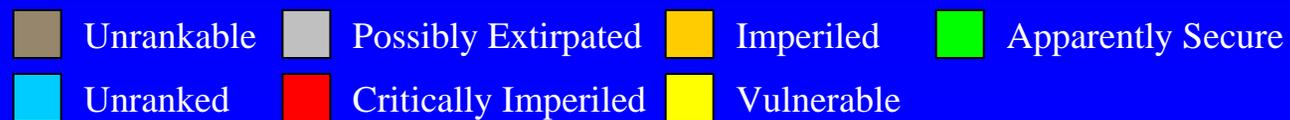
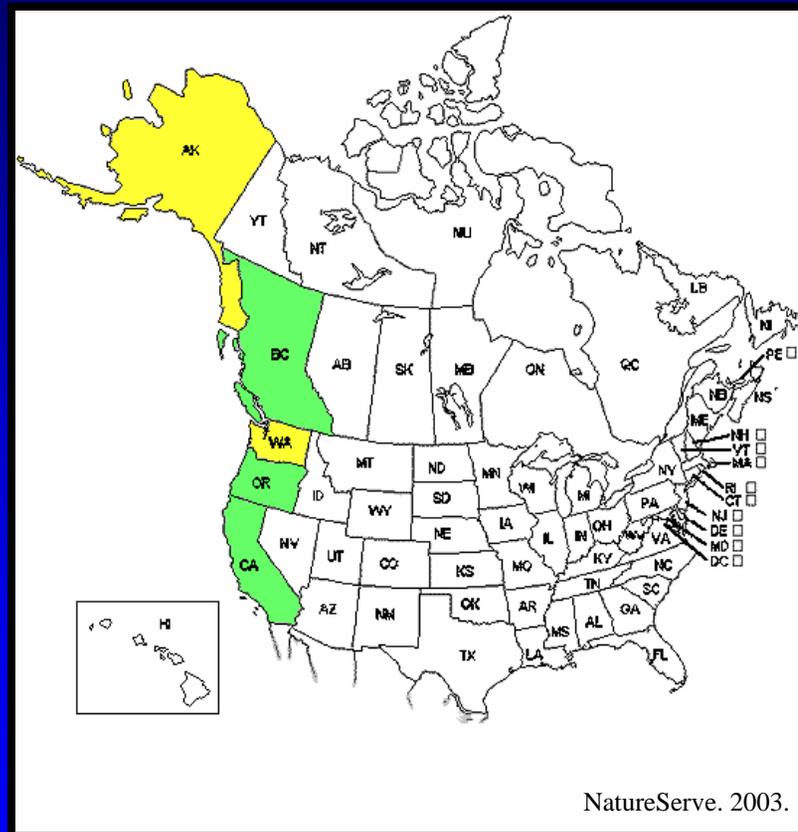
- Parasitic
- Anadromous
- Adults about 300 mm long
- Adults dark brown to lead-grey on dorsal and sides, silvery head, white ventral
- Very little else known
 - Probably spawn from April – May in gravel (California)
 - Transformation occurs at least by 120 mm
 - Fecundity between 11 and 37 thousand eggs (two specimens that were 175 mm and 230 mm)



Scott and Crossman

River Lamprey

- Status

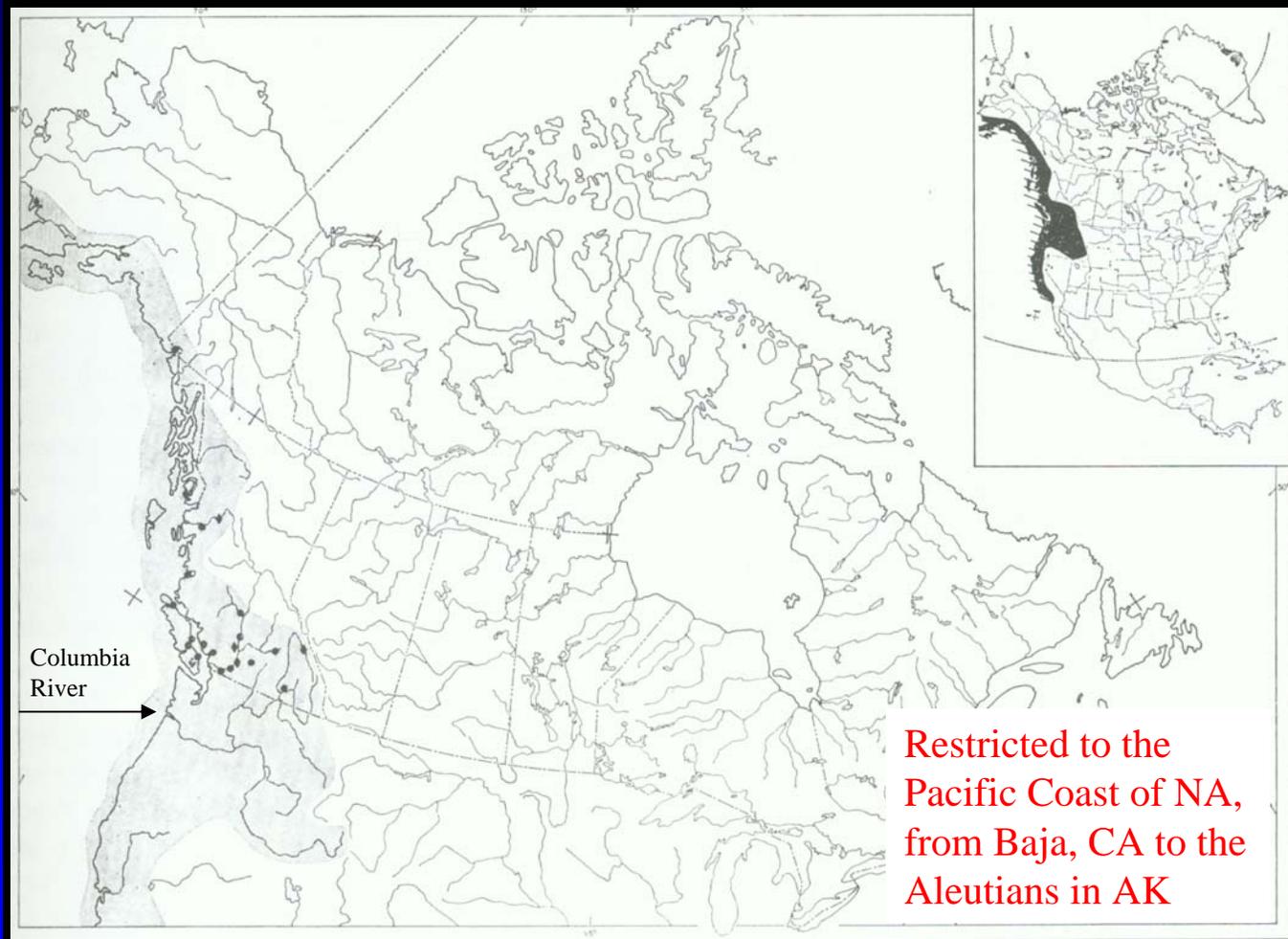


Pacific Lamprey



USFWS

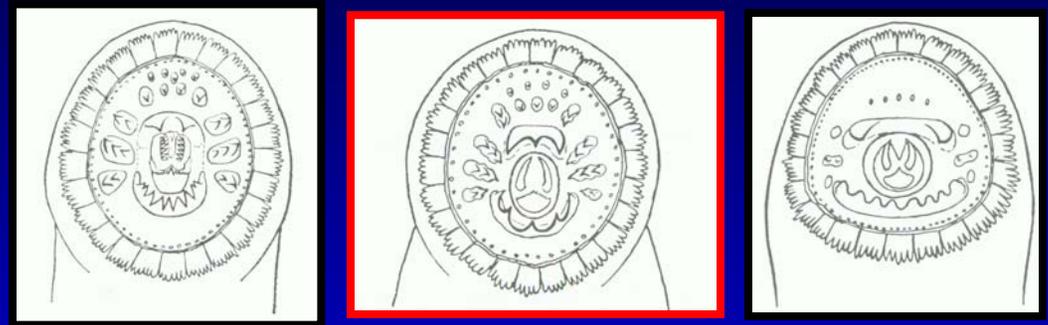
Pacific Lamprey



Pacific Lamprey

- **Life History**

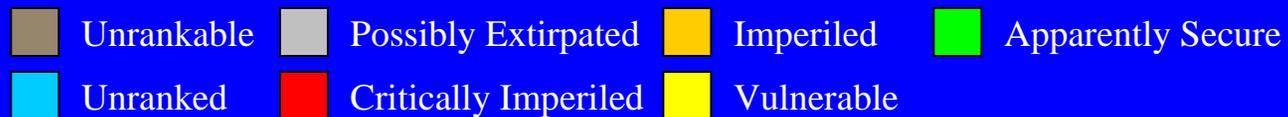
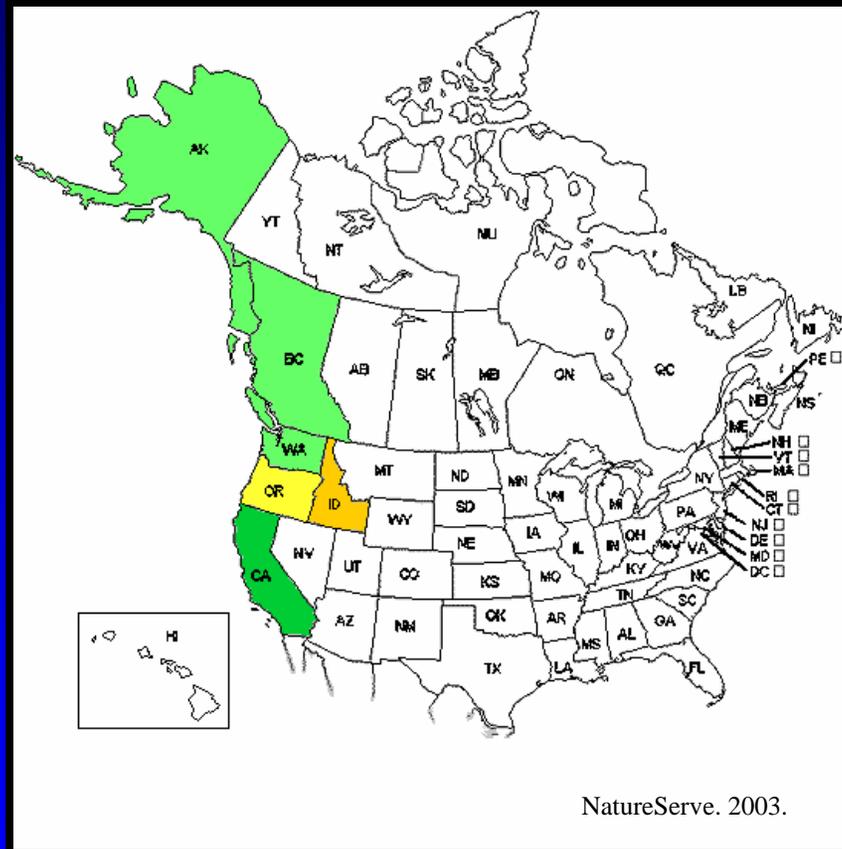
- Parasitic, adults thought not to feed in freshwater
- Anadromous (usually—landlocked populations)
- Adults 680 mm
 - Adults are blue-black to dark brown, lighter ventral
 - Enter freshwater between July and September (over-winter)
 - Spawn during April – July
 - Die after spawning
 - Fecundity 34 to 110 thousand eggs (high in 400 mm female)
 - Eggs hatch in 19 days at 15°C
 - Metamorphosis occurs in fall when fish are around 120 – 300 mm



Scott and Crossman

Pacific Lamprey

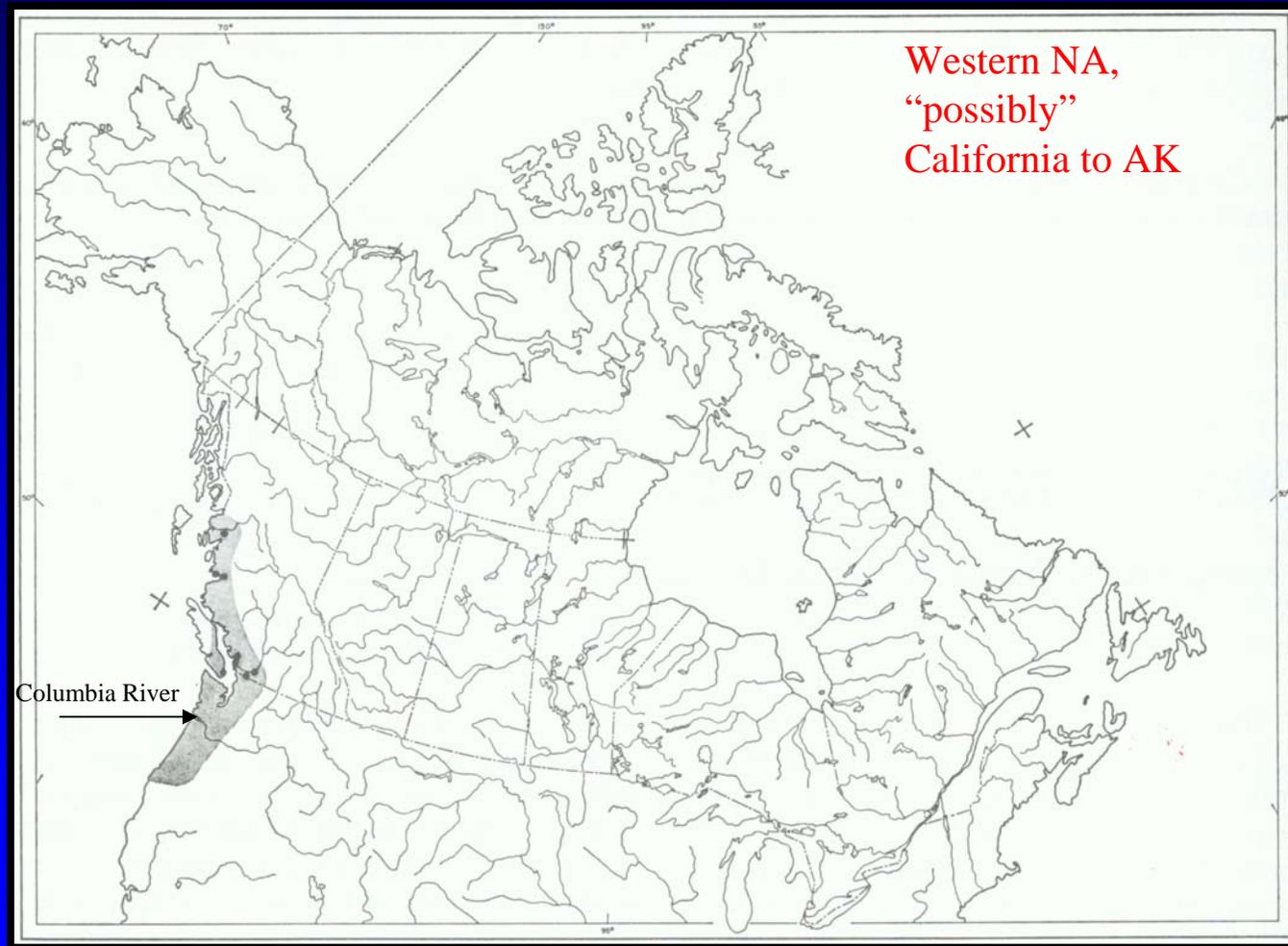
- Status



Western Brook Lamprey



Western Brook Lamprey



Western NA,
“possibly”
California to AK

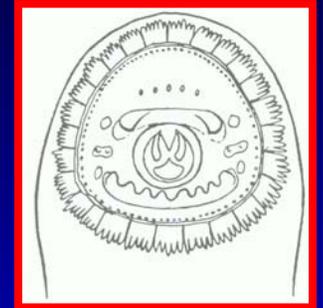
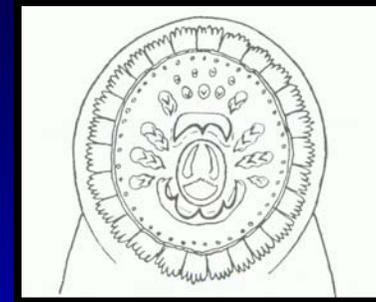
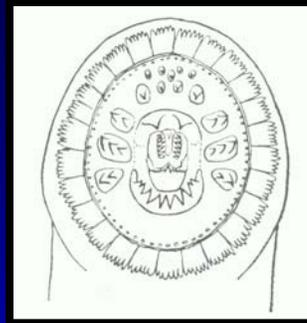
Columbia River

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Western Brook Lamprey

- **Life History**

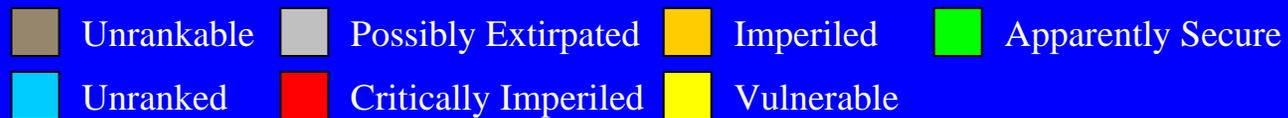
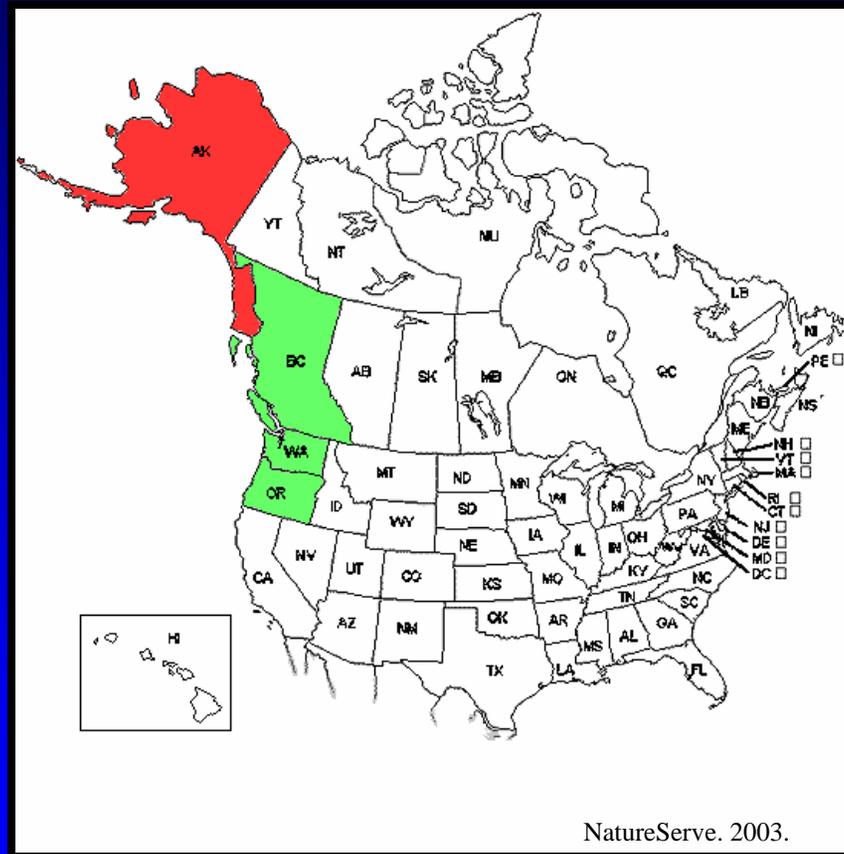
- Non-parasitic
- Non-anadromous
- Adults 155 mm
- Dorsal brown/olive to black on upper surfaces, fins translucent olive-green, caudal marked with black pigment
- Spawns day/night during April – July (more protracted than other sp.)
- Die after spawning
- Fecundity 1100 to 3700 eggs (110 mm and 195 mm females)
- Eggs hatch in 10 days at 15°C
- Metamorphosis occurs August – November, lengths are 130 – 200 mm



Scott and Crossman

Western Brook Lamprey

- Status



History of the Columbia River Lamprey Technical Workgroup



Past

- 1994, Pacific Lamprey Research and Restoration (CTUIR)
 - Status Review completed in 1995
 - Council deferred funding remaining parts until “ad hoc” committee was formed
- 1997, Pacific Lamprey Technical Workgroup Established
 - Meetings occurred in April and October

...Past

- 1999, Planning of CB Pacific Lamprey Projects and Needs
- 2000, Meeting of TWG
- 2002, Columbia River Lamprey Program Summary

Present

- **Regrouped in December 2003**
 - Subcommittee of the Anadromous Fish Committee of the Columbia Basin Fish and Wildlife Authority
 - Coordination activities funded by the US Fish and Wildlife Service
 - Representatives
 - US Fish and Wildlife Service, US Geological Survey, National Marine Fisheries Service, OR Department of Fish and Wildlife, ID Fish and Game, Confederated Tribes of the Warm Springs Reservation of OR, Confederated Tribes of the Umatilla Indian Reservation, Columbia River Inter-Tribal Fish Commission, Oregon State University, Pacific Northwest Laboratories, Portland General Electric, Bonneville Power Administration, Northwest Power and Conservation Council, Columbia Basin Fish and Wildlife Authority, US Army Corps of Engineers, WA Department of Fish and Wildlife, and the Coastal Lamprey Group

Future

- Identify and prioritize critical uncertainties regarding lamprey conservation
- Provide a forum for discussion regarding lamprey-related concerns
 - TWG meetings
 - “Business”
 - Workshops
 - Information sharing
- Disseminate technical information
 - Webpage: <http://columbiariver.fws.gov/lamprey.htm>
 - Respond to technical requests

Format of Workshop

- The Coquille Indian Tribe provided the refreshments for this event
- Audience considerations
 - Please silence your beepers, cell phones, etc.
 - Please save your questions until the end
- Presenter considerations
 - You will be cut off at 20 minutes
 - Please use microphone
 - Please save time for questions
- General discussion
 - Members of the Workgroup will address questions from the audience

The perfect host requires the
perfect parasite.

-Adopted from Lance Fusco