

PETROMYZONTIDAE

Gill openings 7; no barbels; 1 or 2 dorsal folds or fins; eyes well developed in adults; teeth on oral disk and tongue; eggs small, thousands; ammocoete undergoes radical metamorphosis.

Sexual dimorphism; mature males with well developed genital papilla, relatively high dorsal fin folds, and very weakly developed ventral fin fold; females with genital papilla barely visible, dorsal fin folds lower and ventral fin folds well developed.

Figures: A. McPhail & Lindsey 1970:52; B. Scott & Crossman 1973; Baxter.

1 - Adults.

(2)

1 - Ammocetes. See Carl Bond, 1974 Keys to the freshwater fishes of Oregon

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- 2 (1) - Supraoral tooth mostly tricuspid; lateral teeth 4; infraoral tooth with 4 to 8 cusps, velar tentacles 11 to 16.

Lampreta tridentata (Gairdner in Richardson, 1836)

Pacific Lamprey

Range: Marine – Southeastern Bering Sea – Baja California

Freshwater – Southeastern Alaska – California

Fig.: McPhail & Lindsey 1970:48, fig.8(A), 57

Notes: NODC #8603010101; NMFS #00021

Ammocoete with lower half of oral hood dark brown to black.

Myomeres between last gill pore and anus 68 – 74.

Posterial teeth 15 – 18; anterial teeth 8; infraoral cusps 5

TL	- 760
SL	- 99.7% TL
HL 1 st pore	13.2% SL
HL 7 th pore	23.1% SL
Body D	6.7% SL
PreD L	70.2% SL
PreA L	78.2% SL
Snout L	36.3% HL
Eye L	5.6% HL
InOrb W	12.6% HL

- 2 - Supraoral tooth bicuspid, rarely with small central cusp; 3 lateral teeth, bicuspid or tricuspid; infraoral teeth with 5 – 11 cusps (3)

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3 (2) – Posterial teeth 18 – 24; central lateral tooth bicuspid; infraoral cusps 5 – 11.

Lampreta japonica (von Martens, 1868)

Arctic lamprey

Range: Marine: Beaufort Sea – Southeastern Alaska

Freshwater: Alaska

Figs: McPhail & Lindsey 1970:49, fig.8(B), 51

Notes: NODC #8603010201

Ammocoetes with lower half of oral hood unpigmented.

In marine waters bluish dorsally, silver white ventrally; in freshwater the dorsal surface of the body matches the substrate, lighter ventrally.

Pupil about the same size as gill openings; maximum distance from 1st - 7th gill openings 46.2– 53.5% HL; head pores: preorbit 4 – 9, postorbit 8 – 10; mandible 11 – 19.

Infraoral tooth with 6 – 10 cusps, outer bicuspid; non-anadromous form with only single cusp per lateral tooth.

Velar tentacles 2+1+2 - 4+1+4 = 5-9.

Egg diameter 0.92

TL	-625	Head L	17.9-22.5%	TL
Teeth (cusps):		Body D	4.9-5.9%	TL
Tongue: 1 (6-9 + 1 + + 6-9 = 13-19)		PreD L	47.8-68.1%	TL
		PreA L	73.0%	TL
Laterals:		PreAnus L	68.8-71.4%	TL
Dorsal	1 (1-2)	Snout L	24.8-34.5%	HL
Medial	1 (1-2)	PreNostril L	22.4-31.6%	HL
Ventral	1 (1-2)	Pre 1 st gill L	9.8-12.0%	HL
Anterials	3-5 + 2 + + 3 + 8 + + +	Orbit L	14.0-14.8%	HL
Posterials:	14-24	Eye L	3.9-7.0%	HL
Supraoral	1(2)	InOrb W	15.8-18.6%	HL
Infraoral	1	Gill Pore L: 1 st -7 th	47.3-52.7%	HL
D	77-89 + 115-132			
A	(2)			
Caudal	79			
Myomers	130-148			
Eye-D1:	54			
D1-D2:	19-25			
D2-tail:	56			
7 th gill pore to anus	65-80			
7 th gill pore to 1 st dorsal	35-36			
2 nd dorsal -anus	12-15			
Anus-caudal:	53			

3 - Posterial teeth lacking; central lateral tooth generally tricuspid

(4)

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4 (3) Anadromous.

Lampetra ayresi (Gunther, 1870)

River lamprey

Range: Marine – Southeastern Alaska – California

Anadromous -

Fig.: Hart 1973:22

McPhail & Lindsey 1970:49, fig.8(C)

Notes: NODC # 8603010202

Supraoral tooth with 2 cusps; infraoral with 7-10 cusps.

TL	-310	HL 1 st gill	14.2% SL
SL	99.5% TL	HL 2 nd gill	22.9% SL
Teeth (cusps)		Body D	7.1% SL
Tongue: 1 (++ + 1 + ++)		PreD L	50.5% SL
Laterals:		PreAnus L	70.7% SL
Dorsal 1 (2 cusps)		Snout L	33.6-33.8% HL
Medial 1 (2-3 cusps)		Orbit L	11.3-14.7% HL
Ventral 1 (2 cusps)		InOrb W	12.2-16.3% HL
Anterials 5 + 4 + 3 + ++		PreNostril L	31.7% HL
Supraoral 1 (2 cusps)		Gill Pore L: 1 st -7 th	45.0-47.9% HL
Infraoral 1 (8 cusps)			
Posterials 0			
Outer Laterals 0			

D 81, 116

Myomers:

Eye-7th gill 12

7th gill-D #1:36

D #1: 21

D #1-anus: 11

7th gill-anus: 60-71

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4 - Nonanadromous

Lampetra richardsoni (Vladykov & Follett, 1965)

Western brook lamprey

Range: Freshwater; SE Alaska – Oregon

Fig: McPhail & Lindsey, 1970:49, fig.8D

Notes: Probable freshwater, nonanadromous form of *Lampetra ayresi*; reportedly nonparasitic

Teeth blunt, no distinct median tooth on tongue (maybe because of increased tooth wear caused by habit of holding onto rocks).

TL - 175

SL =

Teeth (cusps):

Tongue: 0-1

Laterals:

Dorsal 1 (2 cusps)

Medial 1 (2 cusps)

Ventral 1 (1 cusp)

Anterials ++

Supraoral 1 (2 cusps)

Infraoral 1 (8-9 cusps)

Posterials 0

Outer laterals 0

D

Myomers:

Eye-7th gill:

7th gill-anus: 60-77