



Follow the Adult Pacific Lamprey Migration Journey



Here are simple, easy ways you can follow the journey of adult Pacific Lamprey from the ocean migrating up the Columbia Basin.

1. Go to this PTAGIS (PIT Tag Information System) website:

<https://www.ptagis.org/data/quick-reports/complete-tag-history>

2. Enter any of the following PIT tag IDs #s into the “Value” box

[3D9.239F8765F5](#) (2014-2015 brood adult released in Toppenish Creek)

[384.1B797705CE](#) (2015-2016 brood adult released in Methow River)

[3D6.1D593D94B3](#) (2017-2018 brood adult released in Yakima River)

[3DD.0077B7D48C](#) (2018-2019 brood adult released in Wenatchee River)

The screenshot shows the 'Complete Tag History' form in the PTAGIS web interface. It has tabs for 'Summary Graphs', 'Complete Tag History', 'Adult Ladder Detections', and 'Small-scale Site Detections'. Under the 'Complete Tag History' tab, there is a section titled 'Tag Code - List or Text File (Required)'. Below this, it says 'Enter one or more tag codes (separated by semicolons) or import a text file of up to 300 tag codes.' There are two input fields: 'Attribute: Tag' and 'Form: Code'. The 'Value' field is highlighted with a red arrow pointing to it from the text 'Enter PIT ID # here'. Below the input fields is an 'Import file...' button. At the bottom of the form, there are 'Run Document' and 'Cancel' buttons. A red arrow points to the 'Run Document' button with the text 'Then, click here!'.

Then it will take you to a web page that shows a summary of the lamprey (length, weight, tag/release dates, release location, etc.) as well as the places it was detected

The screenshot shows the 'Complete Tag History For:' results page. It displays a summary of tag information for a specific PIT tag ID. The summary includes fields for 'Tag Info', 'Mark and Release Information', and 'Recapture, Observation, and Mortality Information'. The 'Mark and Release Information' section contains a table with columns: 'Stream/Runflow Type', 'Mark Site', 'Release Site', and 'Release River Kilometer'. The 'Recapture, Observation, and Mortality Information' section contains a table with columns: 'Event Date', 'Event Type', 'Event Site', 'Event Site Code', 'Event Site Type', 'Event Release Date', and '# of Records'. A red arrow points to the 'Tag Info' section, which includes 'Tag Title' and 'Tag ID'.

Stream/Runflow Type	Mark Site	Release Site	Release River Kilometer
Pacific Lamprey	3D9	384	376.040

3. Try solving the migration mystery by answering the following questions:

- How many locations was the lamprey detected? (hint “Event Site Code”)
- How many separate dates was the lamprey detected? (hint “Event Date”)
- What was the total number of detection records? (hint “# of Records”)
- If a lamprey is detected thousands of times in one location (such as a dam), what does that tell us (about the fish’s behavior)?
- Did it move upstream or downstream? Or both? (hint “Event Site RKM” or click on the site code hyperlink to see more details, including maps)

The “Event Site RKM” shows the 3 digit river km (abbreviated as RKM) of the Columbia River, main tributary, and second tributary (starting from the mouth), in that order.

So as the number goes up, it means the lamprey is moving upstream.

Similarly, if the number goes down, it means the lamprey is moving downstream.

Event Site Code	Event Site RKM
LMR	843.008
LMR	843.008
MRC	843.045
CRW	843.080.001
CRW	843.080.001
CRW	843.080.001
CRW	843.080.001

Annotations:

- 843: Columbia River RKM where the main tributary joins the Columbia River
- 008: Main tributary RKM (or where the secondary tributary joins the main tributary)
- 045: Secondary tributary RKM
- 001: Click here to find out more information about the site (full name, site map, etc.)

In the example above, the lamprey was first detected on two dates at RKM 8 on the Wenatchee River (main tributary), then it was detected further upstream at RKM 45, and finally it was detected on four dates in Chewuch River at RKM 1, showing only upstream movement.



Examples of the site map you can see after you click on an Event Site Code

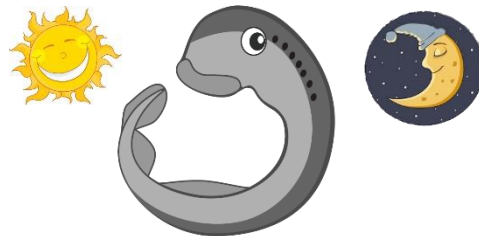
Click here to choose different types of maps (street, topographic, or satellite)

If you click on “Observation Detail” (see below), you can see even more details, such as site full name, antenna group, and individual detection times within each date.

Recapture, Observation, and Mortality Information				
<input type="radio"/> History Summary <input checked="" type="radio"/> Observation Detail <input type="radio"/> Recap/Mort Detail				
Event Site Code	Event Site	Antenna Group	Antenna	Obs Date Time
LMR	Lower Methow River at Pateros	UPSTREAM FULL-WIDTH ARRAY	A4	3/8/2016 12:51:40 PM
				3/8/2016 12:59:39 PM
				3/8/2016 1:16:03 PM
				3/8/2016 1:25:55 PM
				3/8/2016 1:31:55 PM
			A5	3/8/2016 1:37:59 PM
				3/8/2016 1:50:07 PM
				3/8/2016 2:02:33 PM
				3/10/2016 12:24:59 AM
MRC	Methow River at Carlton	Single Array	02	4/1/2016 4:16:44 PM
CRW	Chewuch River above Winthrop	DOWNSTREAM ARRAY	05	5/24/2016 7:56:54 PM
			06	5/24/2016 7:57:01 PM
			06	6/19/2016 2:52:02 PM
		UPSTREAM ARRAY	03	6/20/2016 12:07:31 AM
			03	6/20/2016 12:16:59 AM
			02	6/28/2016 5:07:19 AM

Click here to get more details about the site and detections within the day.

Bonus Question: Is the lamprey being detected more at day or night time??



Submit your answers (a, b, c, d, e, bonus) to lamr@yakamafish-nsn.gov (email text or photo of a paper is fine) by December 31, 2020 to win a prize! (up to 10 lucky winners)