

Fidalgo Bay Aquatic Reserve Forage Fish Surveys Results – 2022 (Surf Smelt) – (01-16-2023)

45 surveys were conducted. (usually 4/month.)

72 different sample locations.

169 samples were collected.

150 samples had eggs. (89%.)

83 samples had more than 100 eggs. (2021 was 96)

(50% of all samples, 55% of egg samples.)

32 (39%) were Jan-Mar + Oct-Dec, 51 (61%) were Apr-Sept.

33 samples had 20 or more “ready to hatch” eggs. (2021 was 25)

(20% of all samples, 22% of egg samples, 40% of 100+ egg samples.)

22 (67%) were Jan-Mar + Oct-Dec, 11(33%) were Apr-Sept

The **east side** has 3300 feet of beach with 34 possible sample sites. (23 surveys.)

64 samples collected from the **east side**.

60 samples had eggs. (94%.)

41 samples had more than 100 eggs.

(65% of all samples, 68% of egg samples.)

16 samples had 20 or more “ready to hatch” eggs.

(25% of all samples, 27% of egg samples, 40% of 100+ egg samples.)

The **west side** has 3600 feet of beach with 38 possible sample sites. (22 surveys.)

105 samples collected from the **west side**.

90 samples had eggs. (82%.)

42 samples had more than 100 eggs. (2021 was 52)

(40% of all samples, 47% of egg samples.)

17 samples had 20 or more “ready to hatch” eggs. (2021 was 11)

(16% of all samples, 19% of egg samples, 32% of 100+ egg samples.)

The **east side** has a higher rate of samples with eggs (94% vs. 82%) and a much higher rate of samples with 20 or more “ready to hatch” eggs (25% vs. 16%.)

Warmer months = more eggs, cooler months = higher hatch rate. (Need more shade.)

29 different volunteers contributed more than 350 volunteer hours.

Many other questions can be asked of the data. 2022 will mark 10 full years of consistent surveys and we plan to ask and try to answer such questions using all that data.

Below is a chart showing the percentage of samples of eggs by month – for 2016 through 2022. You can see that 2022 was quite a prolific year – especially in the colder months. That is good news because, although the amounts of eggs spawned then is smaller than in the summer, the survival rate is much enhanced by cooler weather.

