

Pacific Herring Spawn Surveys

Howe Sound North

2010 – 2015

Surveys, images and documentation
John Buchanan, Squamish BC



Herring on the West side of
Howe Sound Jan. 9, 2014
10u 0484662
utm 5502819

Compiled by Anton van Walraven, Concerned Citizens Bowen, Bowen Island BC – November 18 2015

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Survey method

- Cruise the shoreline with boat,
- Use binoculars to spot glistening globs of eggs on seaweed,
- Mark the spots (beginnings and ends) with GPS,
- Take photos and videos.

Equipment used

Boats

2010 - 16 foot canoe

2011 – 2013 - 12 foot aluminum boat powered by a 5hp mercury outboard

2014-2015 - 16 foot fiberglass runabout with 50hp outboard motor

GPS

Garman 62s

Cameras

canon D10

canon sx40

gopro hero 3

pentax wg-11

sony 1000

Microscopes

10 x field microscope

Celestron digital lab microcope

2010 Herring Spawn surveys

Photos taken near the Squamish area that support spawning at the Squamish terminals west dock and some activity in the Mamquam blind channel.



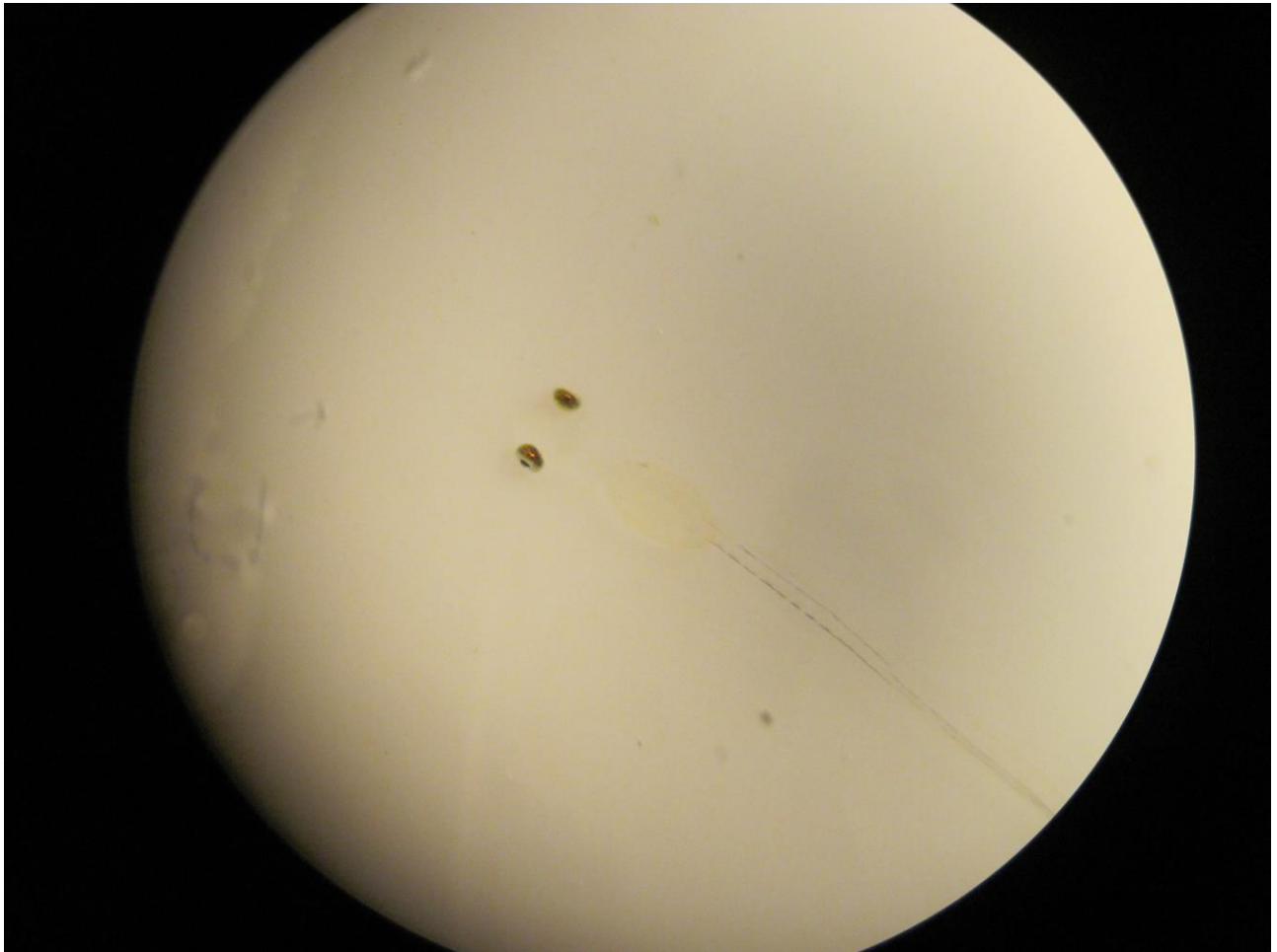
2010 Herring Spawn survey images: **February 10 2010**

Photos taken near the Squamish area that support spawning at the Squamish terminals west dock and some activity in the Mamquam blind channel.



Location of Herring Spawn Squamish BC

2010 Herring Spawn survey images: February 10 2010



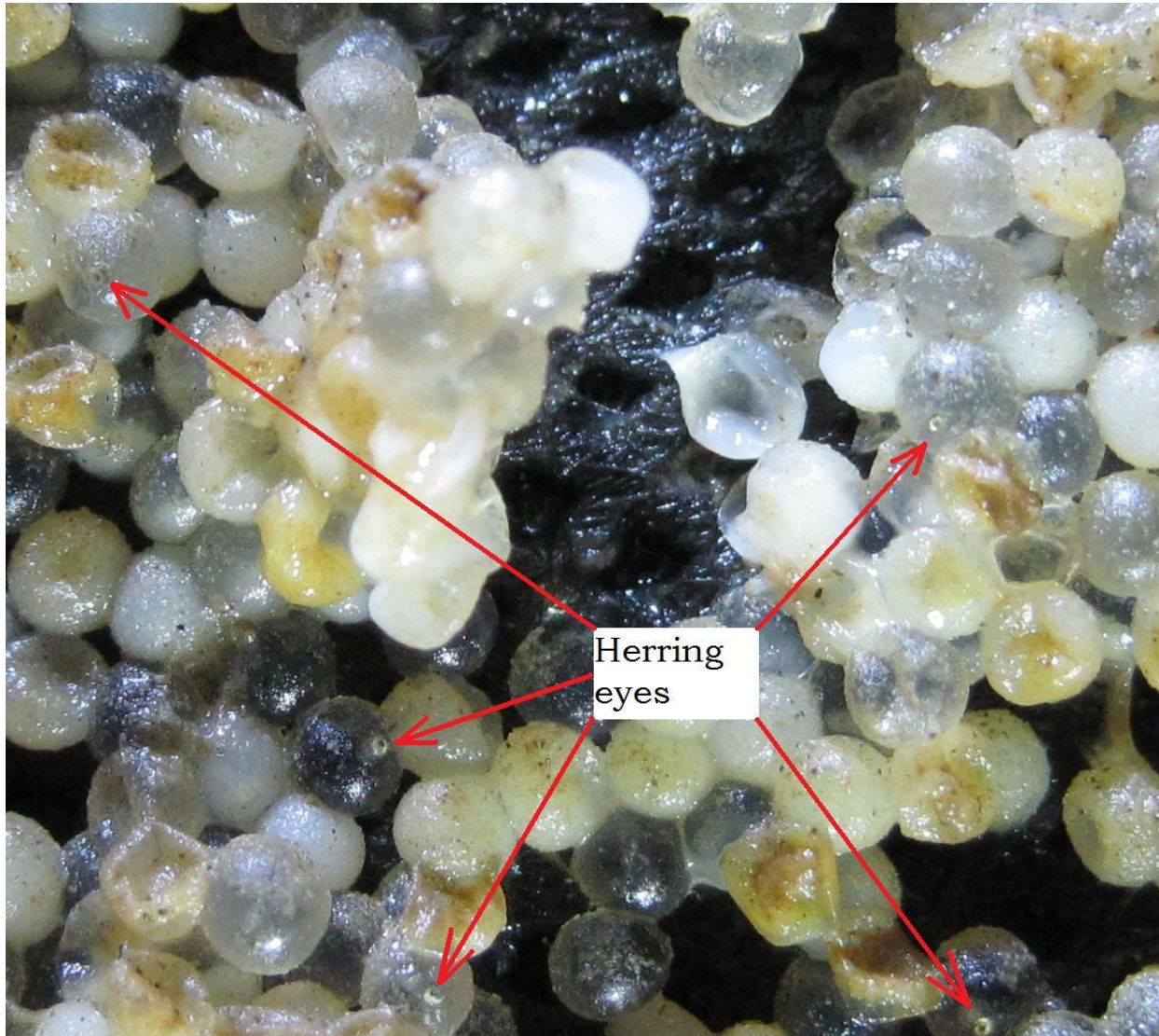
2010-02-10 Herring larvae developing, Squamish Estuary.

2010 Herring Spawn survey images: March 5 2010



2010-03-05 West dock herring eggs

2010 Herring Spawn survey images: March 5 2010



2010-03-05 West dock herring eggs

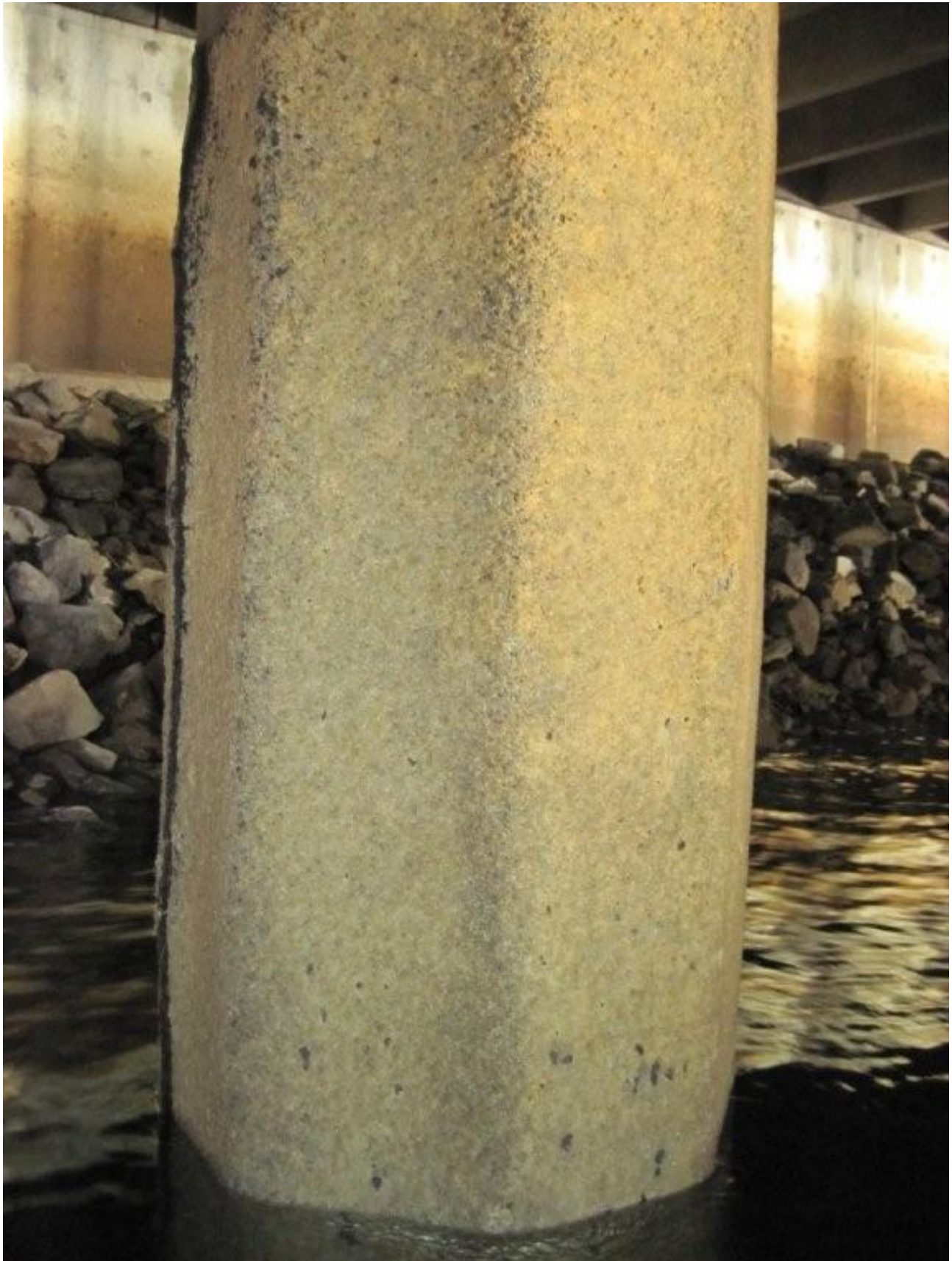
2010 Herring Spawn survey images: March 5 2010

March 5, 2010



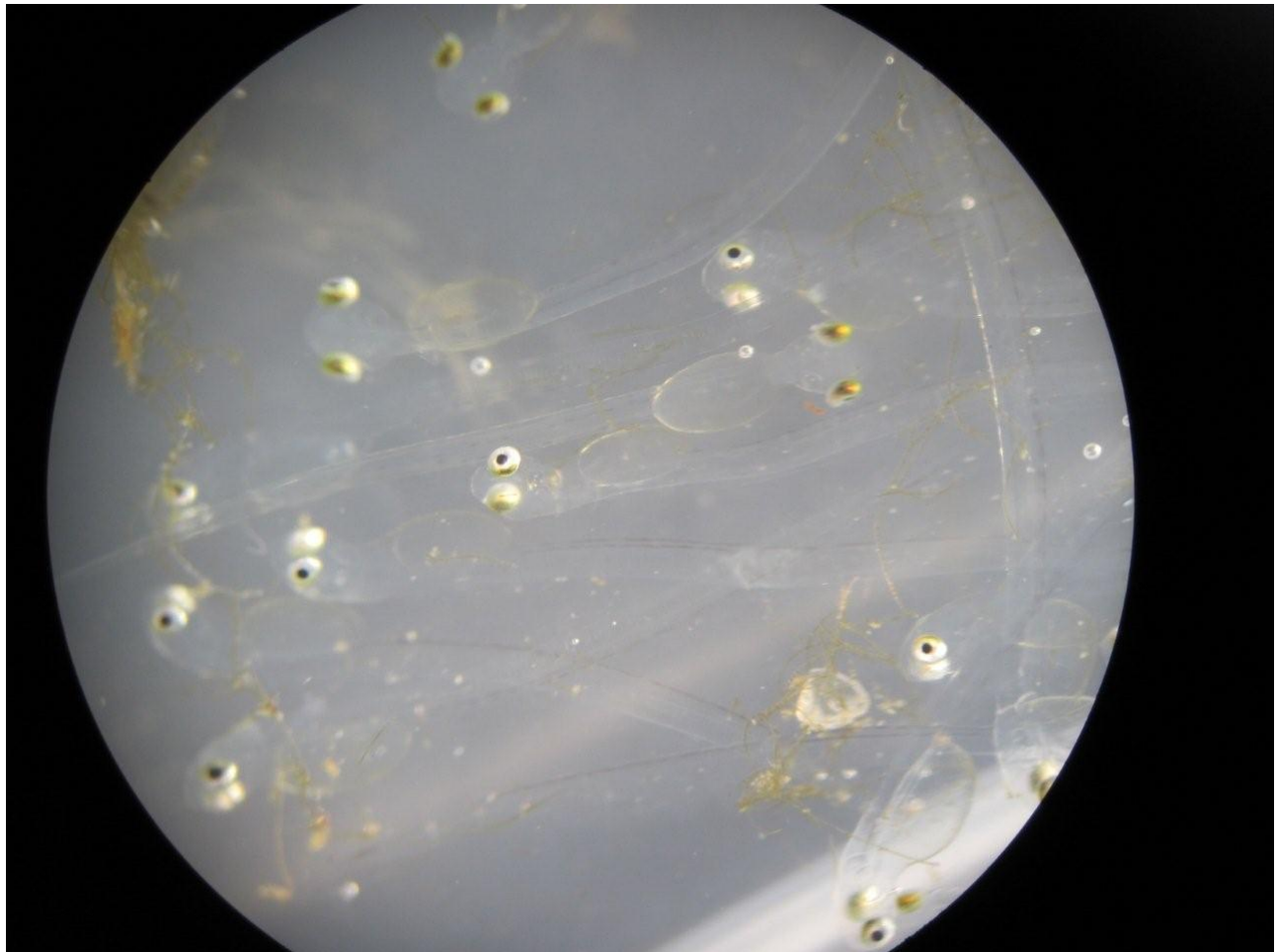
2010-03-05 West dock herring eggs

2010 Herring Spawn survey images: **March 5 2010**



2010-03-05 West dock herring eggs

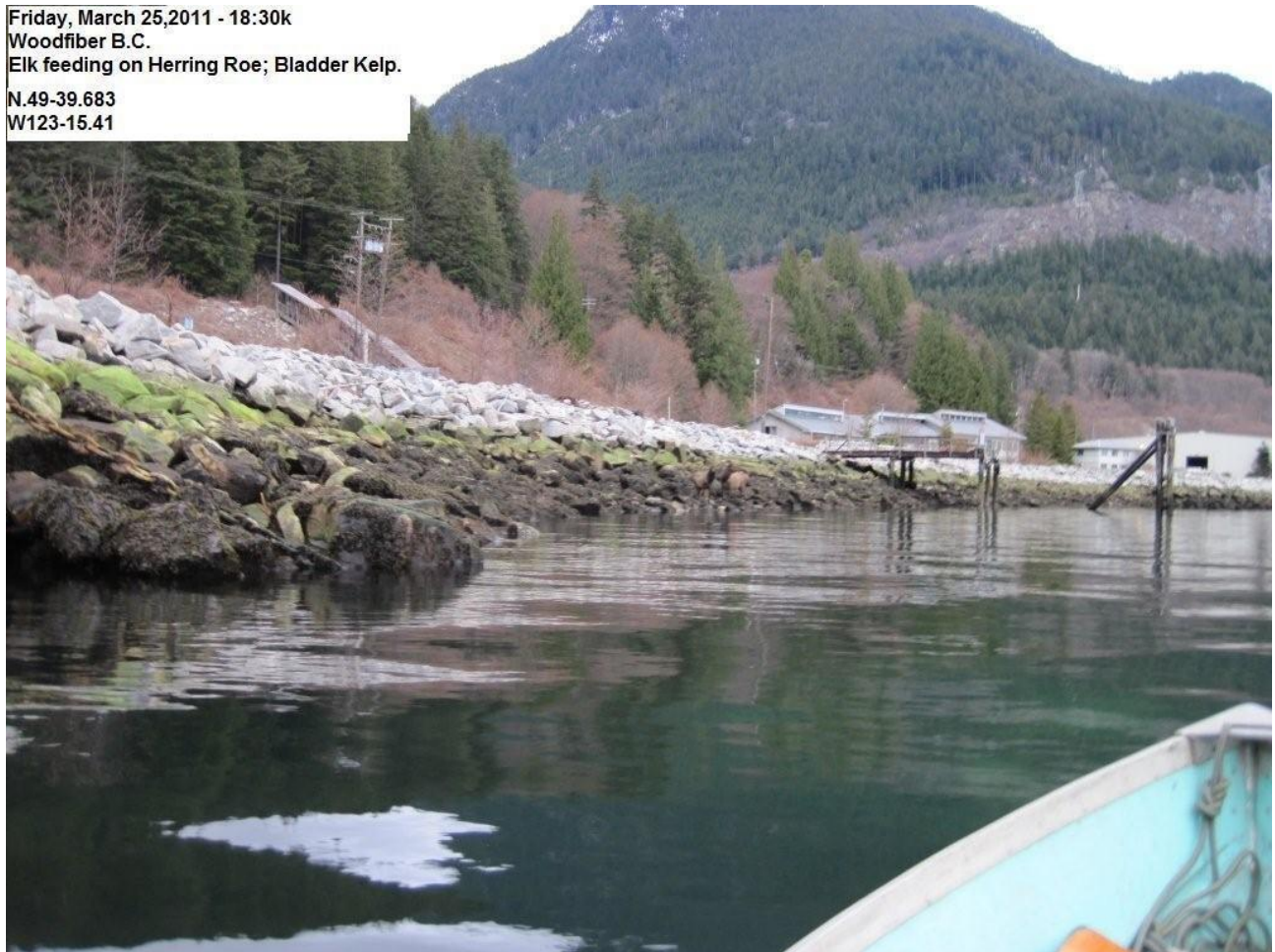
2010 Herring Spawn survey images: **March 6 2010**



2010-03-06 Herring larvae, Blind channel, Squamish B.C.

2011 Herring Spawn survey report: **March 25 2011**

Friday, March 25, 2011 - 18:30k
Woodfiber B.C.
Elk feeding on Herring Roe; Bladder Kelp.
N.49-39.683
W123-15.41



2011 Herring Spawn survey report: **March 25 2011**

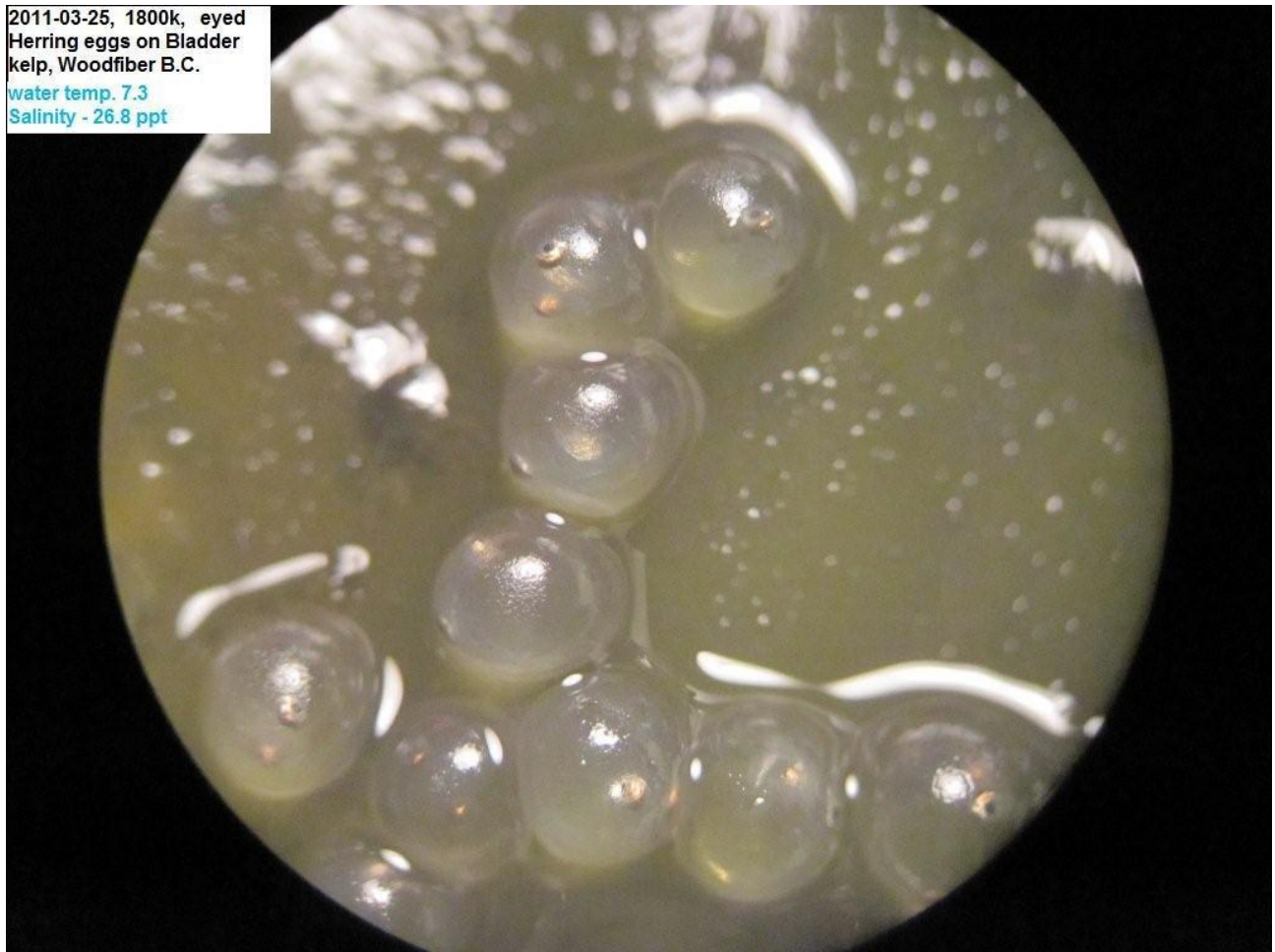
2011-03-25, 1800k, eyed
Herring eggs on Bladder
kelp, Woodfiber B.C.

water temp. 7.3 c.
Salinity - 26.8 ppt



2011 Herring Spawn survey report: **March 25 2011**

2011-03-25, 1800k, eyed
Herring eggs on Bladder
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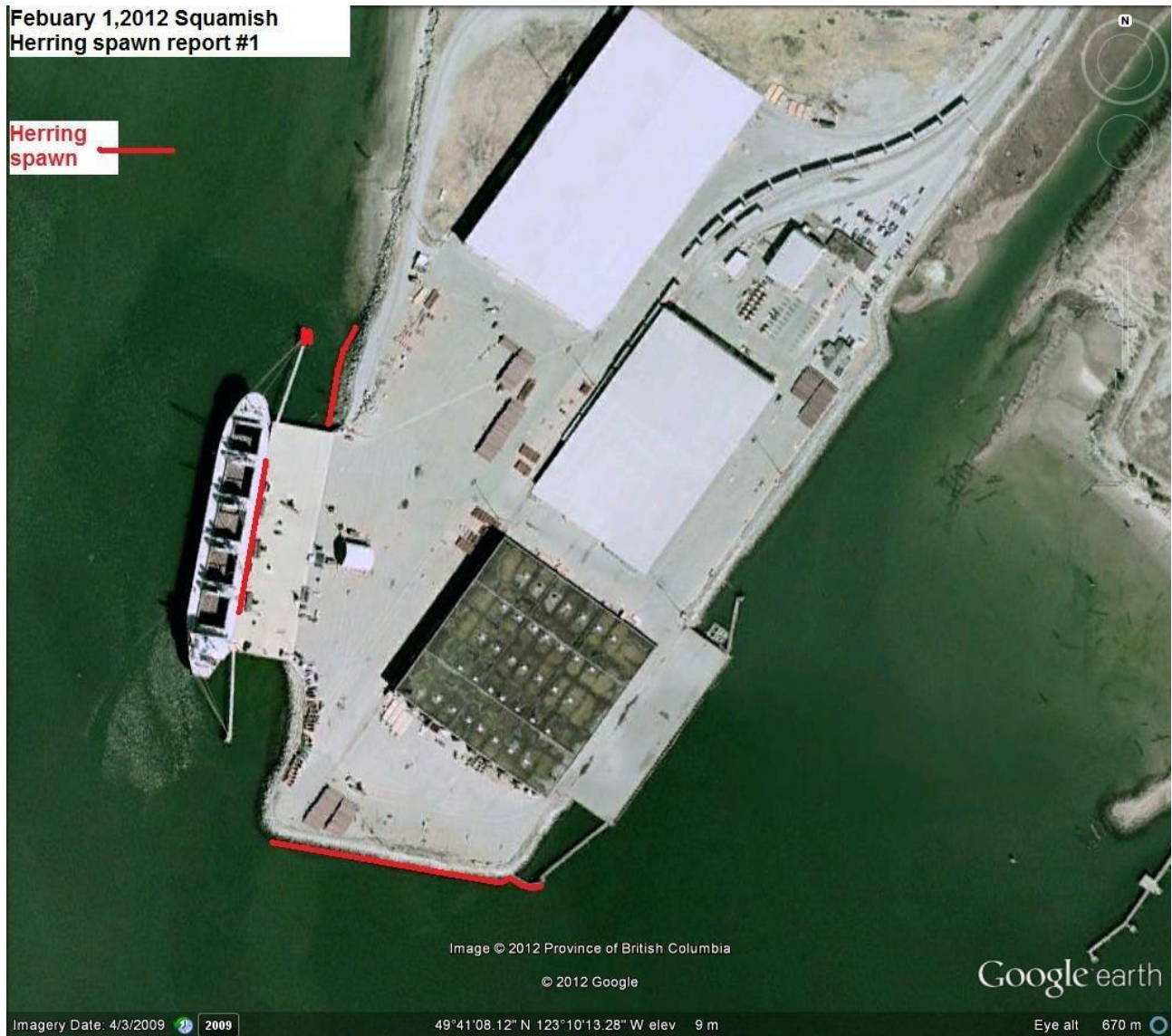


2011 Herring Spawn survey report: **March 25 2011**

Friday, March 25, 2011 - 18:30k
Woodfiber B.C.
Elk feeding on Herring Roe; Bladder Kelp.



2012 Herring Spawn survey report #1 : **February 1 2012**



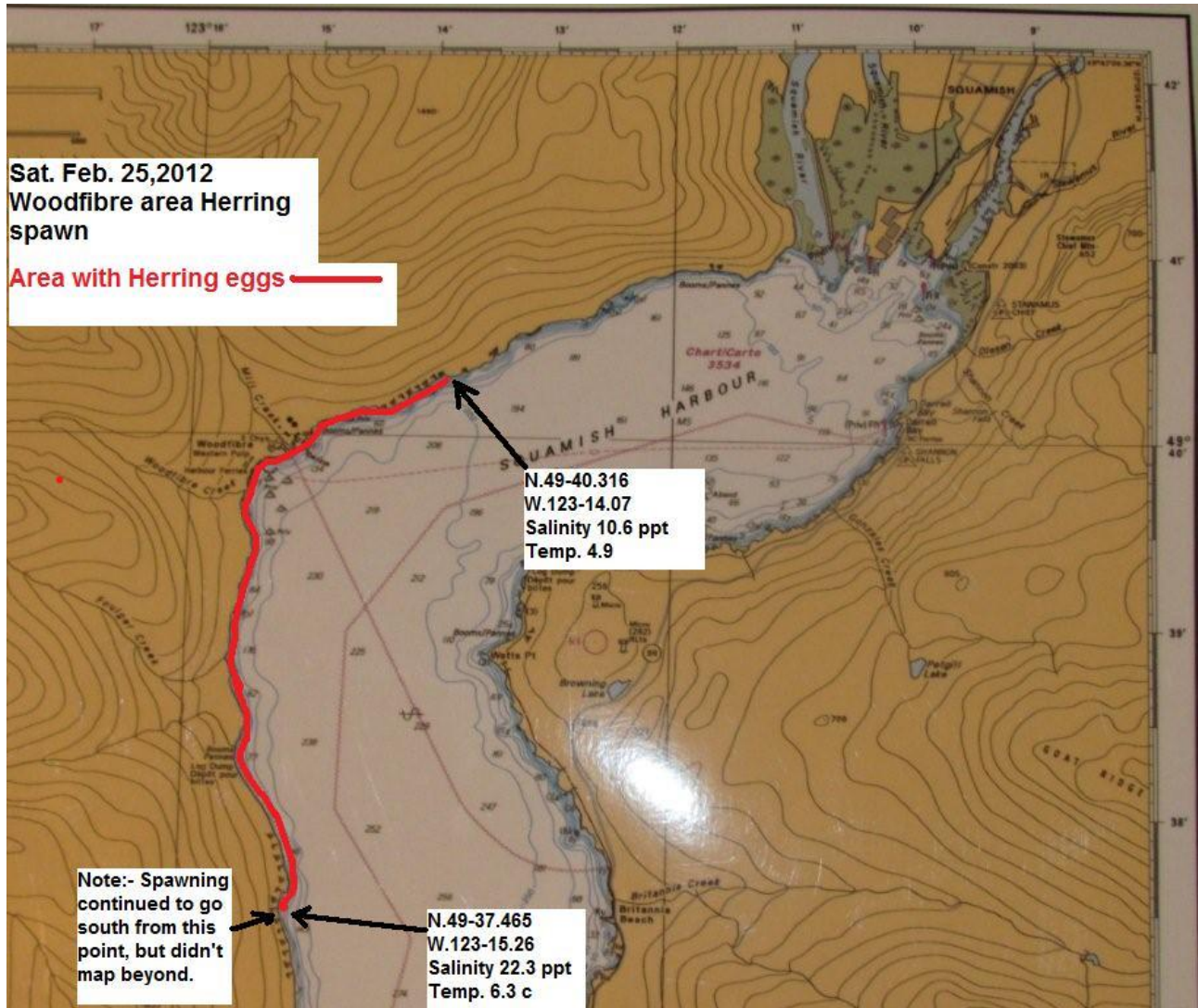
Herring spawn Nexen beach Squamish, B.C.

2012 Herring Spawn survey report : **February 12 2012**

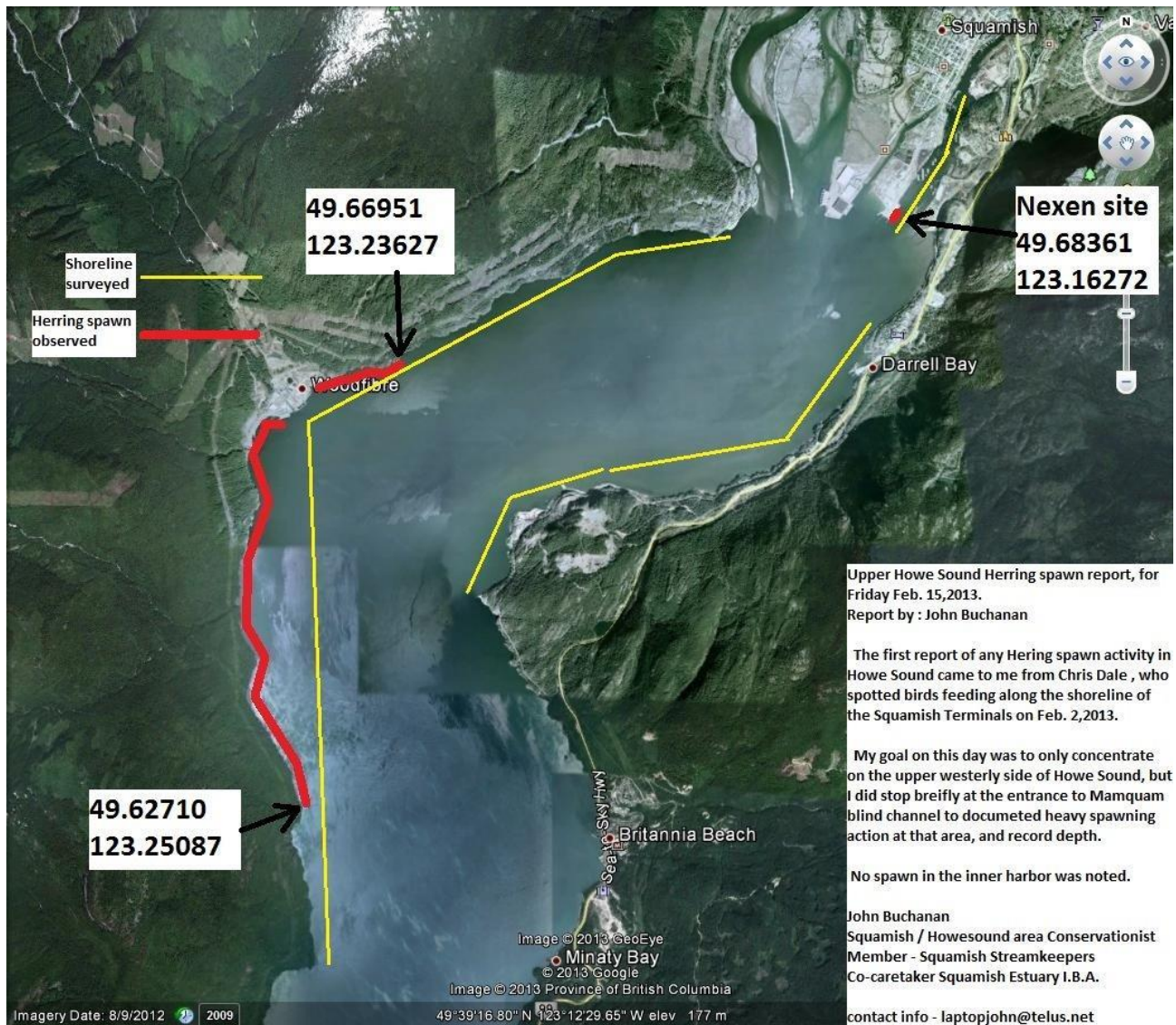


Herring spawn Nexen beach Squamish, B.C.

2012 Herring Spawn survey report : **February 25 2012**



2013 Herring Spawn survey report: **February 15 2013**



2013 Herring Spawn survey report: **February 15 2013**



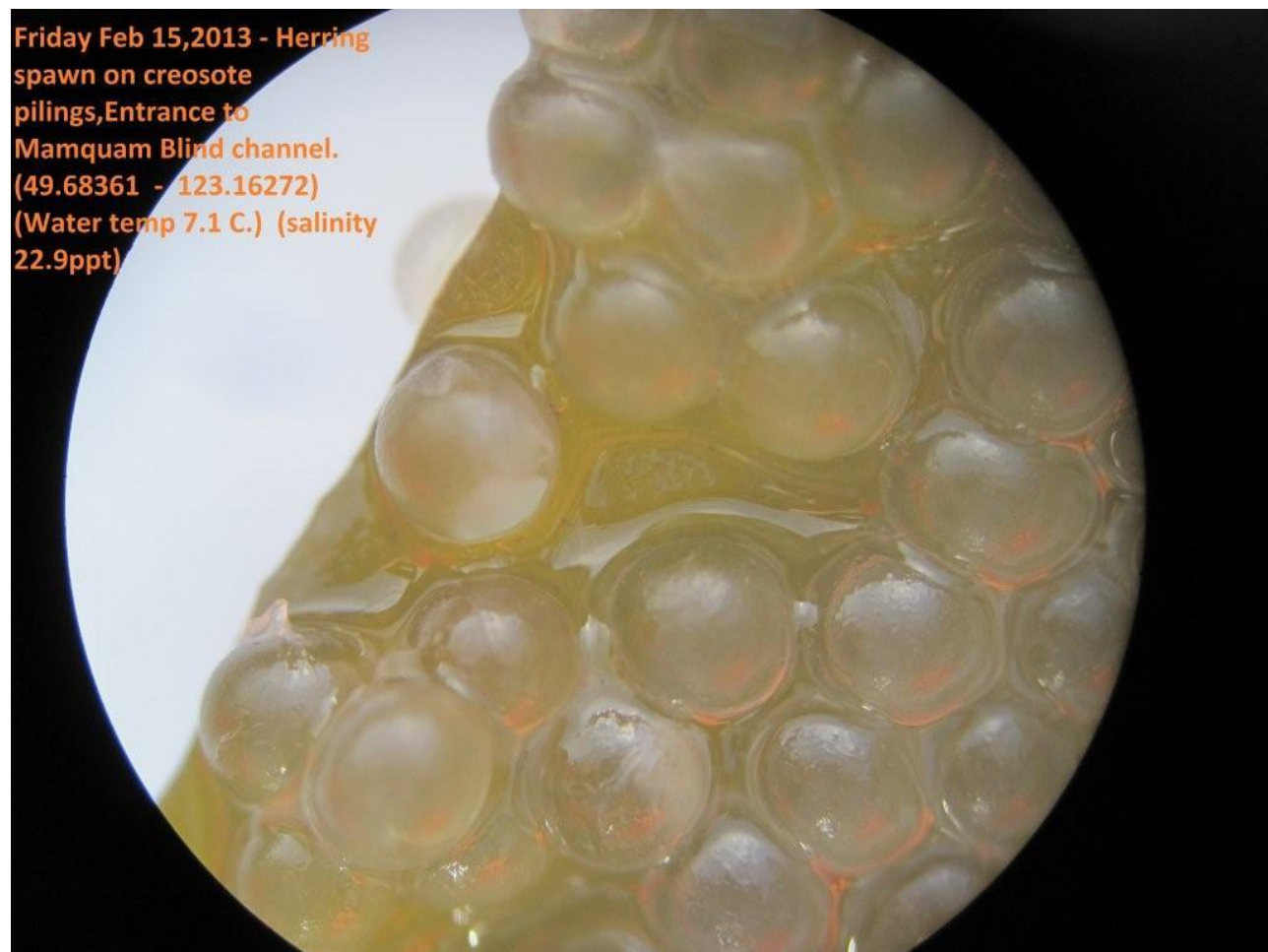
Herring spawn on Creosote pilings, Entrance to Mamquam Blind channel

2013 Herring Spawn survey report: **February 15 2013**



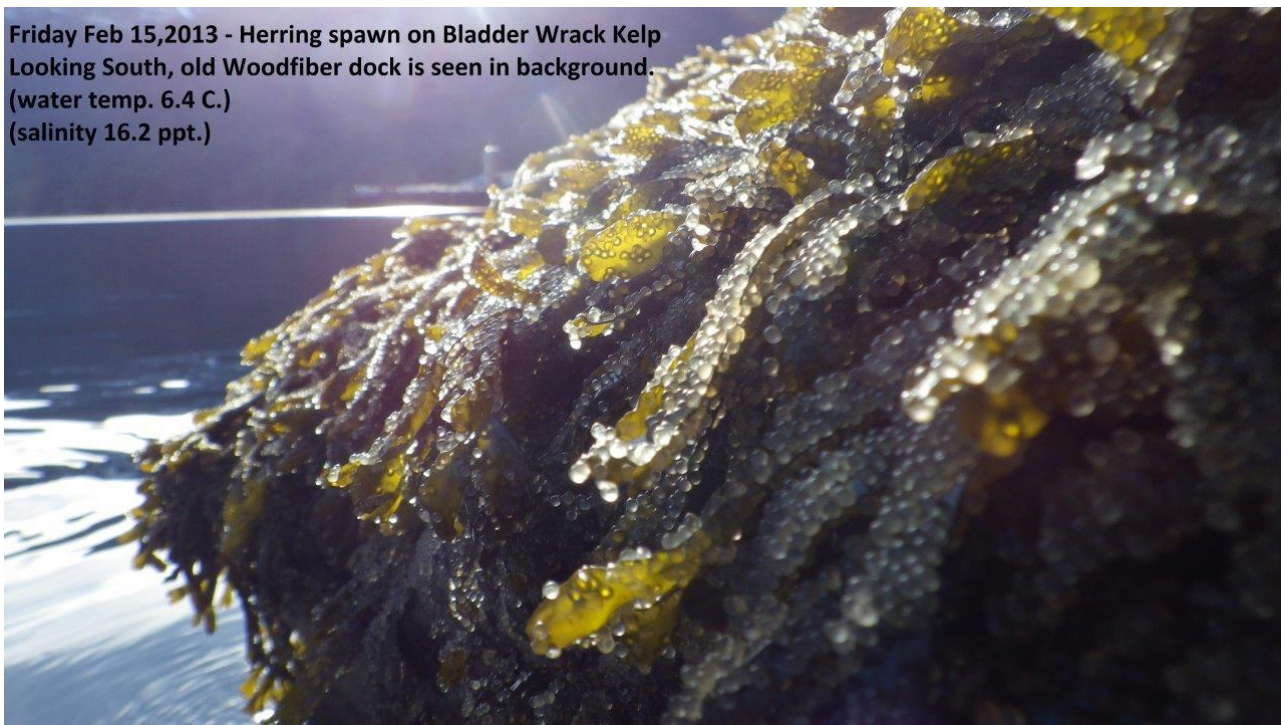
Herring spawn on Creosote pilings, Entrance to Mamquam Blind channel

2013 Herring Spawn survey report: **February 15 2013**



2013 Herring Spawn survey report: **February 15 2013**

Friday Feb 15,2013 - Herring spawn on Bladder Wrack Kelp
Looking South, old Woodfiber dock is seen in background.
(water temp. 6.4 C.)
(salinity 16.2 ppt.)



Herring Spawn on Bladder Wrack Kelp looking South, old Woodfibre dock in background.

Friday Feb 15,2013 - Herring spawn on Bladder Wrack Kelp
Looking NORTH, old Woodfiber dock is seen in background.
(water temp. 6.4 C.)
(salinity 16.2 ppt.)



Herring Spawn on Bladder Wrack Kelp looking North, old Woodfibre dock in background.

2013 Herring Spawn survey report: **February 15 2013**

Friday Feb 15, 2013 - Herring
spawn on Bladder Wrack Kelp
(water temp. 6.4 C.)
(salinity 16.2 ppt.)



2014 Herring Spawn survey report : **January 9 2014**



Herring on the West side of
Howe Sound Jan. 9,2014
10u 0484662
utm 5502819

2014 Herring Spawn survey report : **February 11 2014**

Herring report #3

Feb. 11, 2014 Upper Howe Sound

Jan. 19-27, 2014 Spawn █Feb. 11, 2014 Active spawning in progress █

Tues. Feb. 11, 2014 10:30 a.m.

While approaching Woodfiber, I noticed some Gulls actively feeding on the Shoreline at Cedar creek. Nearer to the shoreline the water was a milky white, and Herring were seen actively swimming through, in, and around the bladderwrack in full spawning mode. Caught 3 Herring by jigging, all 7-1/2 " in length. Got some incredible video !

John Buchanan
Squamish B.C.
laptopjohn@telus.net

Surface temp. 4deg. C.

Tides **Tue 11, 2014**

4:45 AM PST / 14.34 ft

9:57 AM PST / 11.12 ft

2:31 PM PST / 13.29 ft



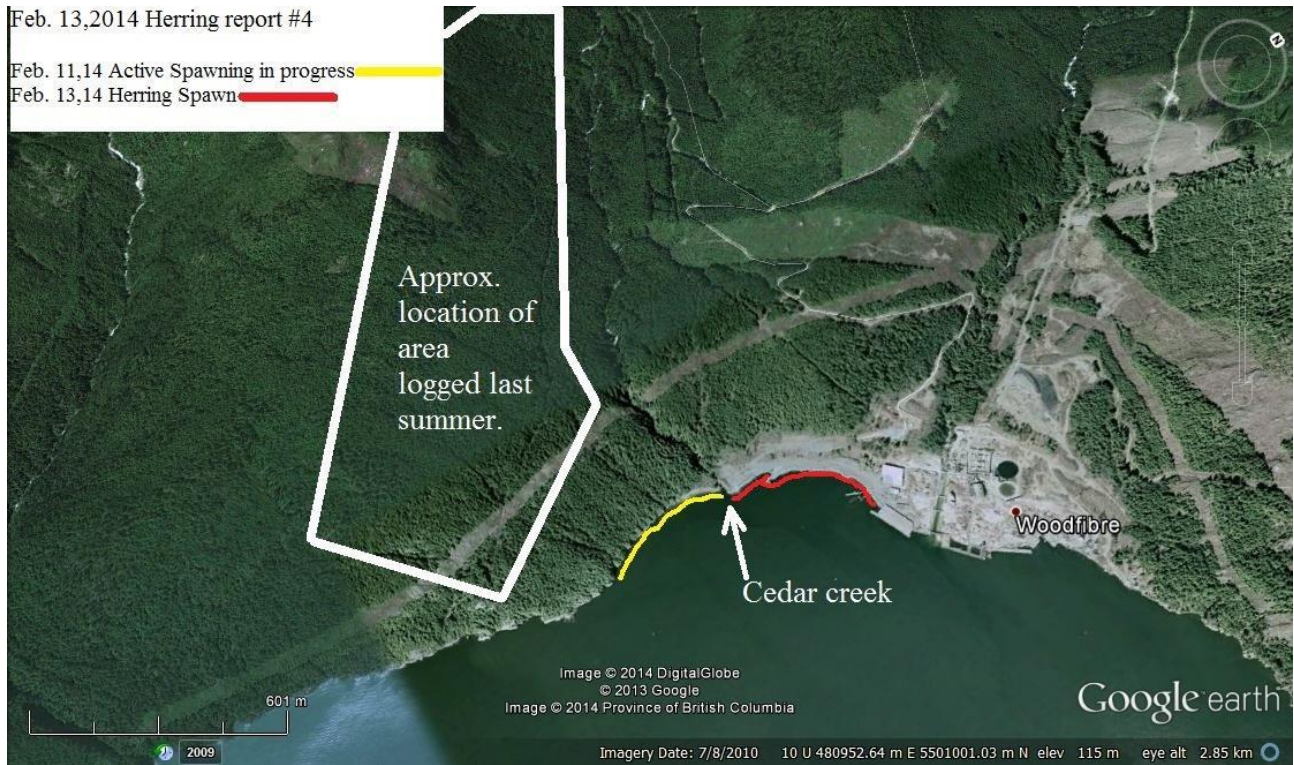
Dead diseased Herring recovered at Cedar creek , Woodfibre B.C

2014 Herring Spawn survey report : **February 11 2014**



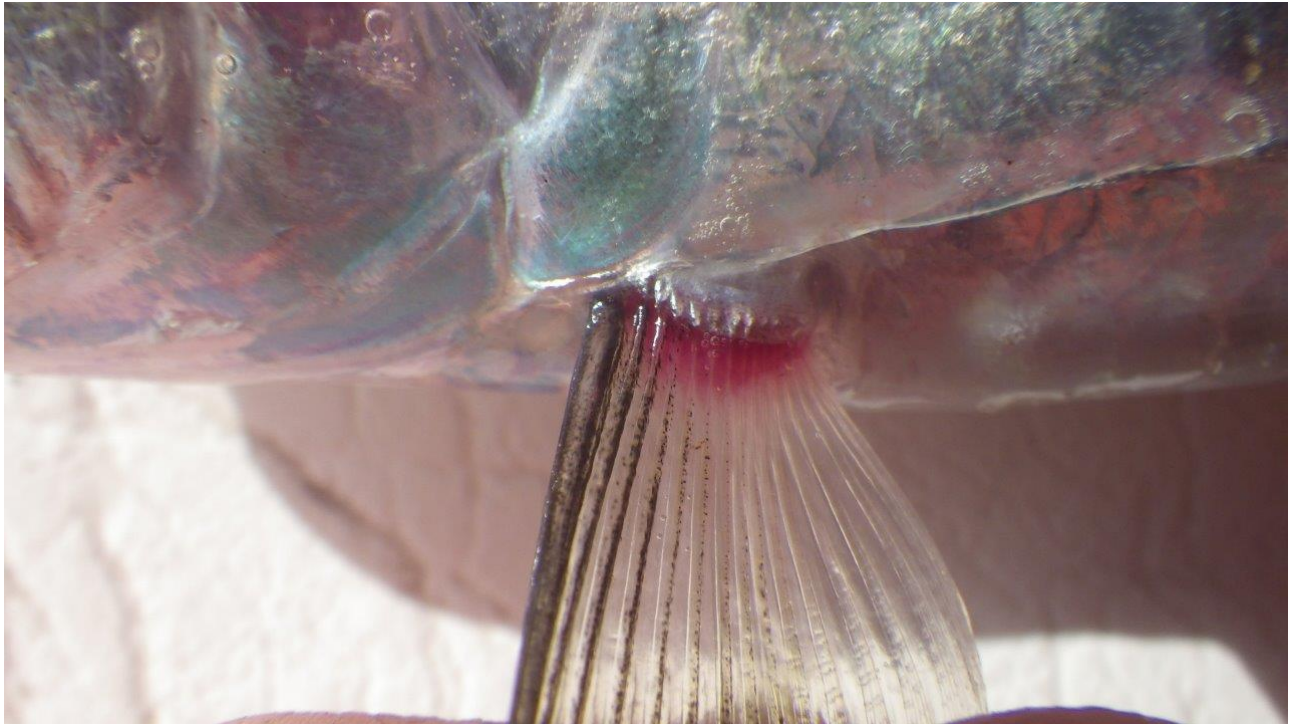
Herring caught with jig, at Cedar creek, Woodfibre.

2014 Herring Spawn survey report #3 : **February 13 2014**



Dead diseased Herring recovered at Cedar creek , Woodfibre B.C

2014 Herring Spawn survey report : **February 13 2014**



Dead diseased Herring recovered at Cedar creek , Woodfibre B.C

2014 Herring Spawn survey report : **February 13 2014**

Email communication:

Woodfiber area, Herring Spawn survey February 13, 2014
report #4

From: laptopjohn@telus.net

To: "Jack Cooley" <jackcooley39@gmail.com>, "Scott" <juggernautpictures@telus.net>, "Ruth Simons" <ruth.simons@futureofhowesound.org>, "Rob Bell-Irving" <rob.bellirving@dfo-mpo.gc.ca>, "Murray J FLNR Watt:EX" <murray.j.watt@gov.bc.ca>, "Caroline Ashekian" <cashekian@squamish.ca>

Cc: "jordan sturdy mla" <jordan.sturdy.mla@leg.bc.ca>, "john weston" <john.weston@parl.gc.ca>

Sent: Friday, February 14, 2014 11:56:15 AM

Subject: Feb. 13,2014 Herring report #4

Scott and I went back out yesterday to see about the chances the spawning was still active and to get some more footage , but the event was over.

- 1 - We recover one dead Herring near the shore that seemed to have some kind of disease.
- 2 - I was alarmed to see Cedar creek running brown. This will impact the survival rates of this latest Spawn. The only thing I can think is that the recent logging in that water shed is related to this.
This should be investigated by D.F.O. and ministry of Forests to determine if this is the case.
3. The old ship tied up at Woodfiber is listing to one side. Bilge should be pumped out , but bilge water needs to be treated or hauled away to a treatment facility before discharging into the water.
4. The Mamquam Blind channel shore line is being in filled at the south east side with no safe guards in place. Again very detrimental to the Herring Spawn about to happen.
5. Bilge water has been reportedly pumped from a collection of old boats moored in the mamquam Blind in recent days putting visible pollutants into the water.

Seems no shortage of issues here.

I have copied both Jordan Sturdy and John Weston on my latest report to ask that they share this information within their government circle to show the complete lack of environmental enforcement within our region.

Video and photos attached.

John Buchanan

Squamish B.C.

2014 Herring Spawn survey report : February 13 2014

Video reports

Shoreline infill Mamquam Blind Channel Video

<https://www.youtube.com/watch?v=I2N5sOgWa3E>

Cedar creek video

https://www.youtube.com/watch?v=DIYYG_ICUtw

2014 Herring Spawn survey report #5 : **February 17 2014**



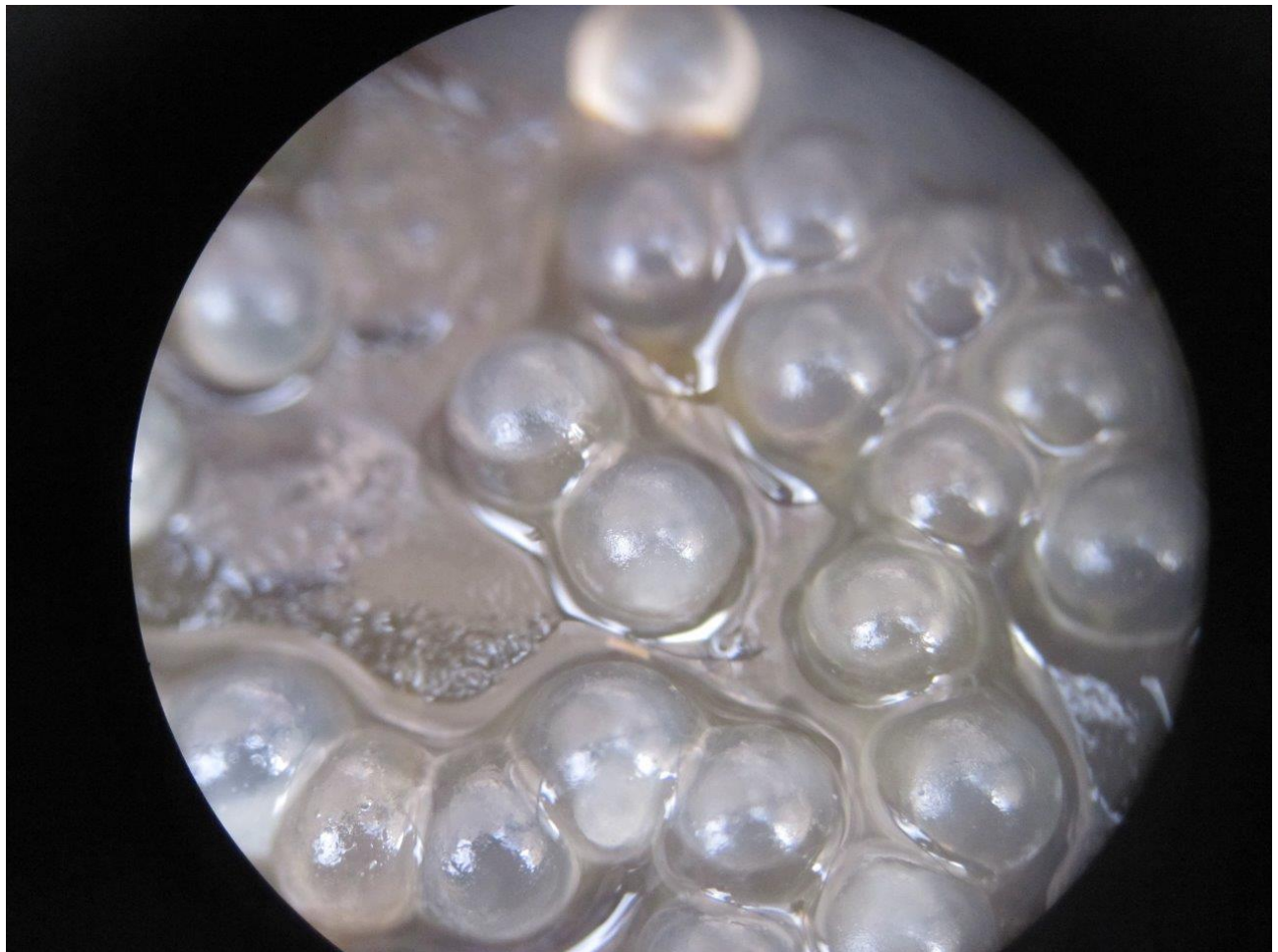
2014 Herring Spawn survey report #5 : **February 17 2014**



2014 Herring Spawn survey report #5 : **February 17 2014**



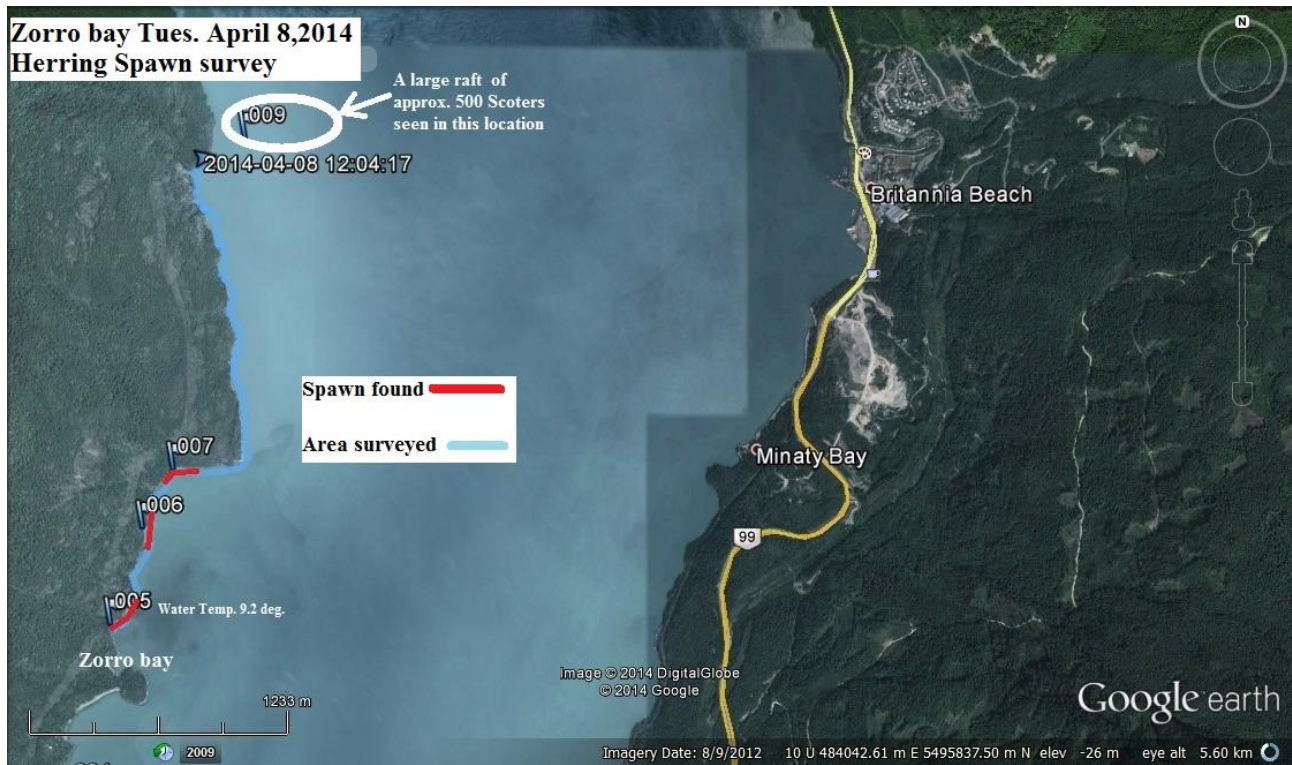
2014 Herring Spawn survey report #5 : **February 17 2014**



2014 Herring Spawn survey report #5 : **February 17 2014**



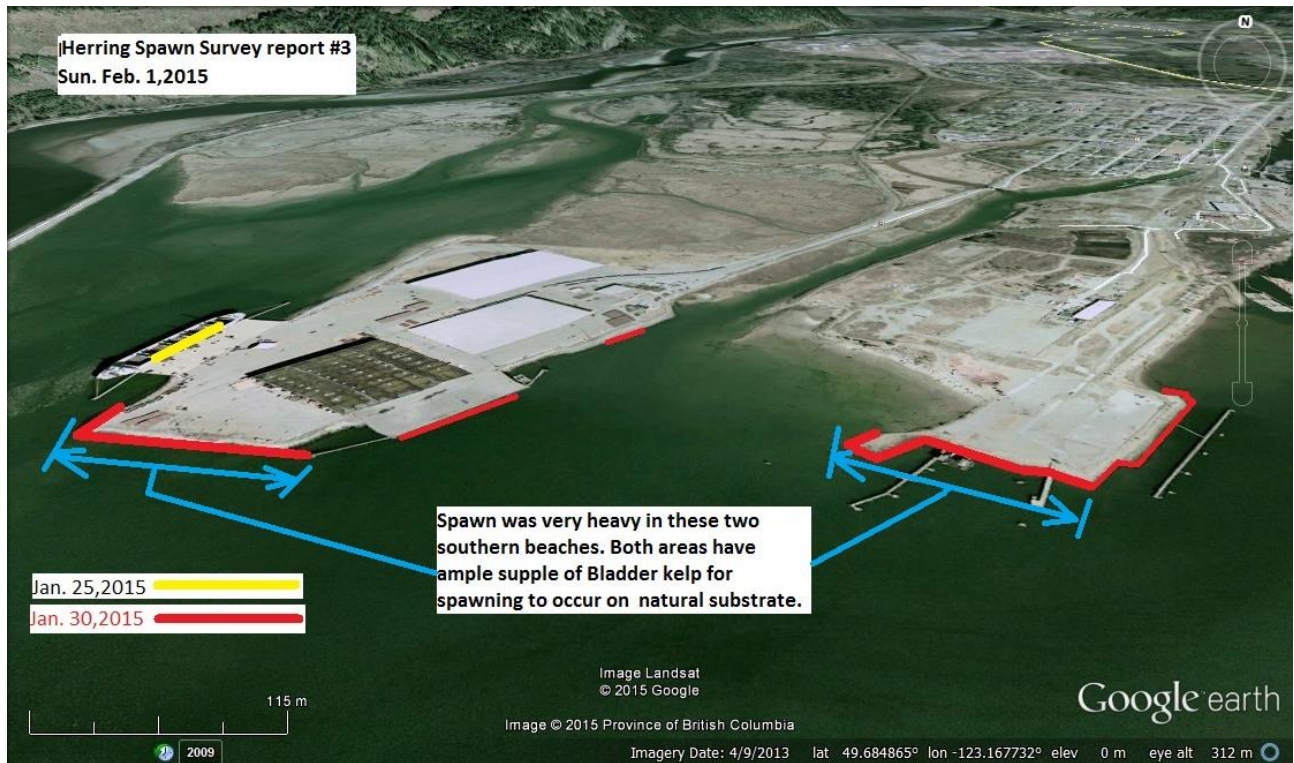
2014 Herring Spawn survey report: **April 8 2014**



2014 Herring Spawn survey report: April 9 2014



2015 Herring Spawn survey report # 3: **February 1 2015**



Herring found on Nexen beach

2015 Herring Spawn survey reports: February 1 2015



2015 Herring Spawn survey reports: February 1 2015



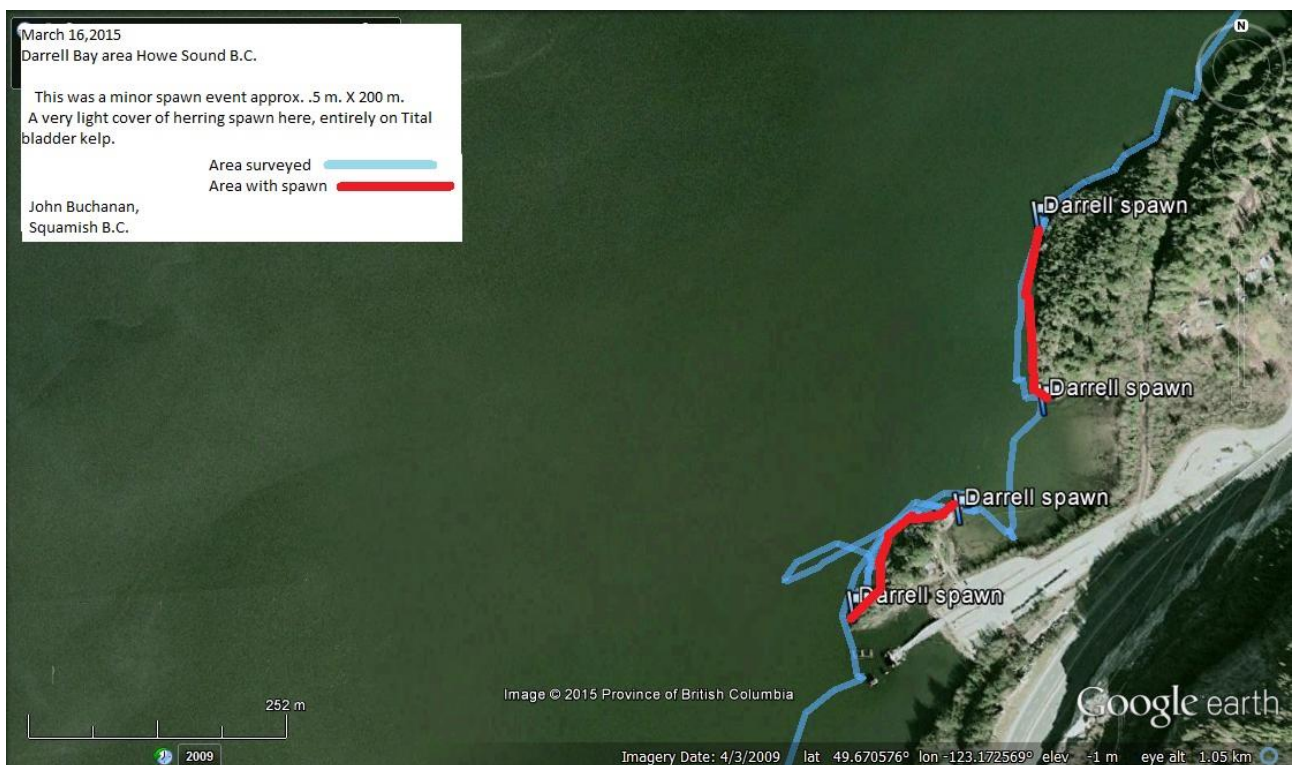
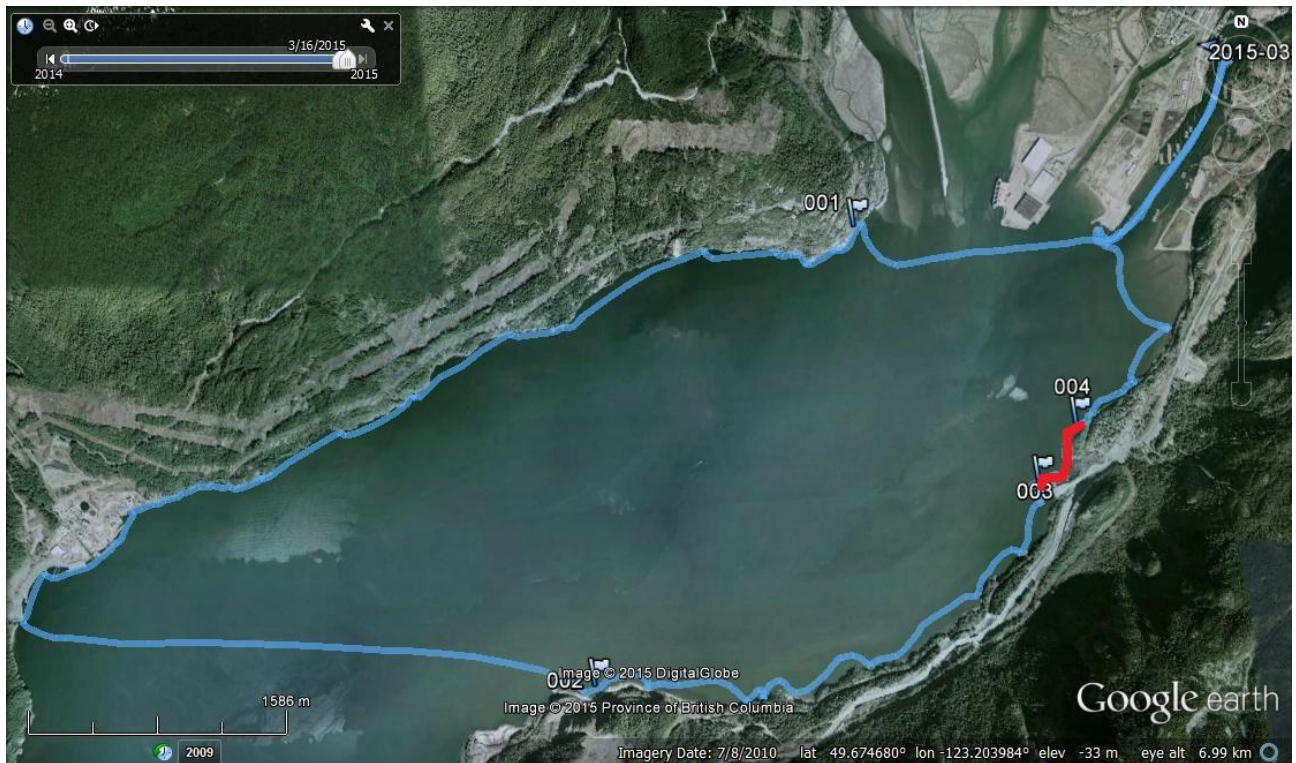
2015 Herring Spawn survey reports: February 1 2015



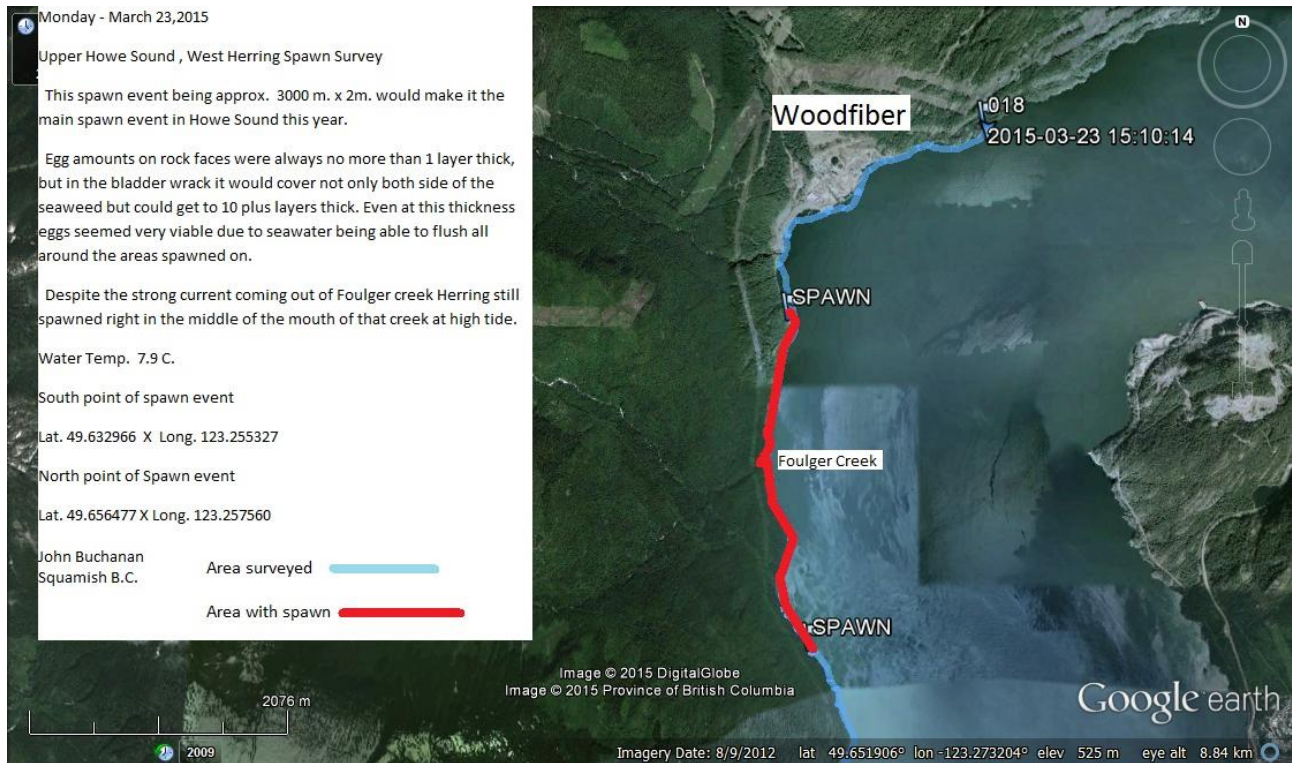
2015 Herring Spawn survey report #4: **February 22 2015**



2015 Herring Spawn survey report #5 : **March 16 2015**



2015 Herring Spawn survey report #6 : **March 23 2015**



2015 Herring Spawn survey report: **March 23 2015**



2015 Herring Spawn survey report: **March 23 2015**



2015 Herring Spawn survey report #7 : April 30 2015



Herring Spawn survey report #6: April 30,2015

Email communication

From: laptopjohn@telus.net**To:** "Jack Cooley" <jackcooley39@gmail.com>, "Scott Renyard" <juggernautpictures@telus.net>, drjonmatsen@shaw.ca, "stan proboszcz" <stan@propellerstrategy.org>, "Tracey Saxby" <tracey@myseatosky.org>, "Jennifer Thuncher" <jthuncher@squamishchief.com>, "North Shore Wetland Partners" <north.shore.wetland.partners@gmail.com>, "Stephen Foster" <s.f@telus.net>, "Ruth Simons" <ruth.simons@futureofhowesound.org>, "Ramona de graaf" <foragefish.bc@gmail.com>**Sent:** Thursday, April 30, 2015 7:43:09 PM**Subject:** Woodfiber area, Herring Spawn survey April 30,2015

Video link to Spawn survey

https://www.youtube.com/watch?v=A3ehfMe_omY**Herring Survey report #6**

Started off from the Mamquam Blind channel boat launch. Nothing new seen in the Mamquam Blind area or Nexen Beach. Over to the Squamish Terminals, shows the East dock remaining pilings mostly removed now, south shoreline showed no new spawning activity nor did the West dock reveal any signs.

Starting at the Mouth of the Squamish moving South along the shoreline I was met by a Turkey Vulture that hovered over the boat for a bit too long, then moved on. No Herring spawn spotted until I reached the Woodfiber area. A stretch to the North side of Woodfiber was Approximately 100 feet in length and an undetermined width as water visibility was poor but 1meter plus for sure at a medium density.

The second stretch start was in the middle of the mill area, and was continuous for a kilometer south to Foulger creek. Medium to heavy egg cover directly in front of the mill to Woodfiber creek. Woodfiber creek to Foulger creek was sporadic to light. The area immediately around the mouth of Foulger creek was extremely heavy.

Again the depth , width of the spawn was difficult to ascertain due to low visibility, but I was able to photograph a spot in front of the Woodfiber mill area that revealed spawn on Bull Kelp at a depth of 15 feet.

Closer examination of the eggs show that they have only started their development and spawn date would have been very recent , perhaps in the last 4 days or so. Although the Herring use the Woodfiber area on a regular basis for spawning, it should be noted that this is the first time I have documented them this late in the season.

John Buchanan
Squamish B.C.

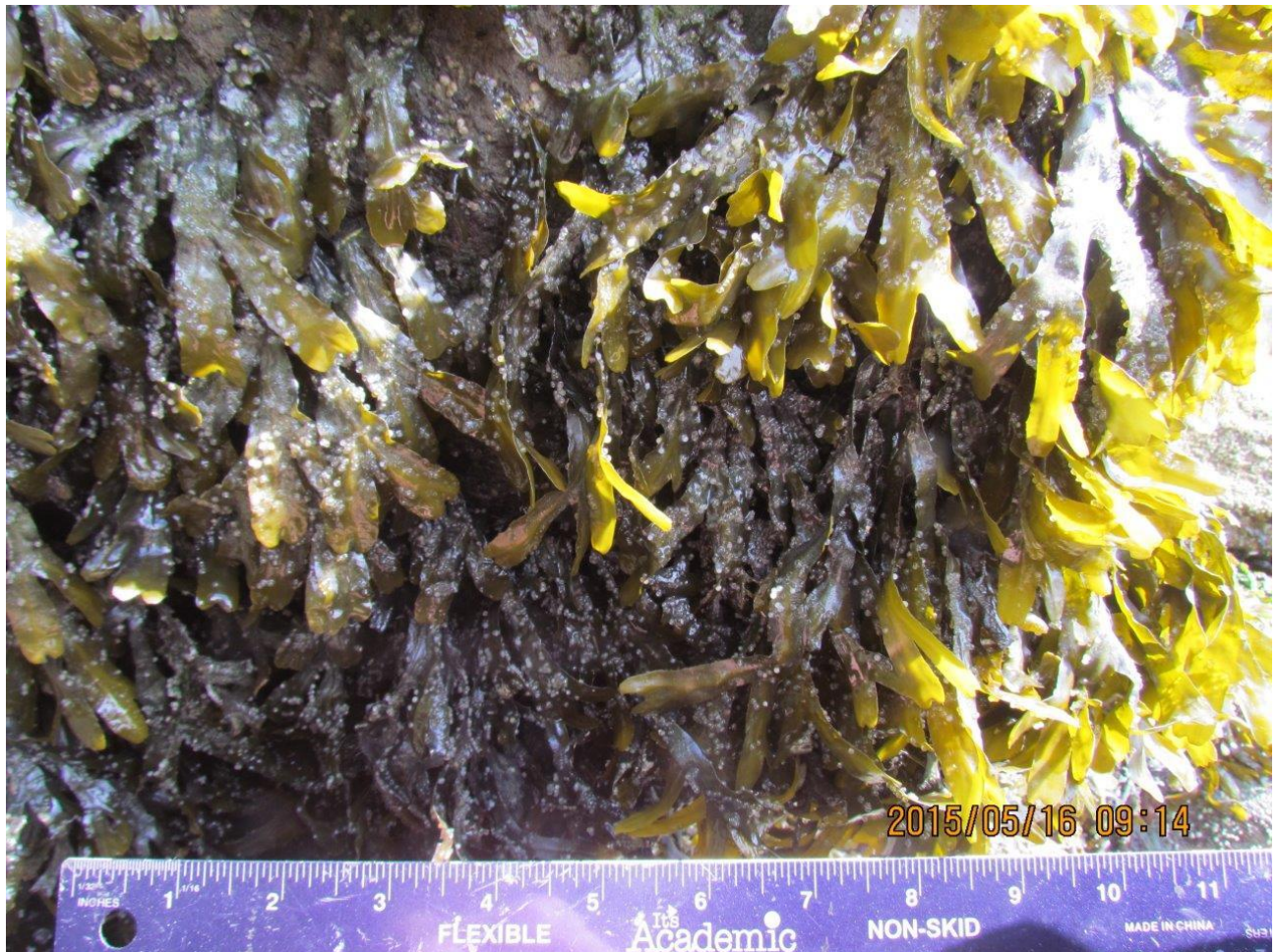
2015 Herring Spawn survey report #8: May 16 2015

Spawn Survey report #8 New Herring Spawn found on May 16, 2015

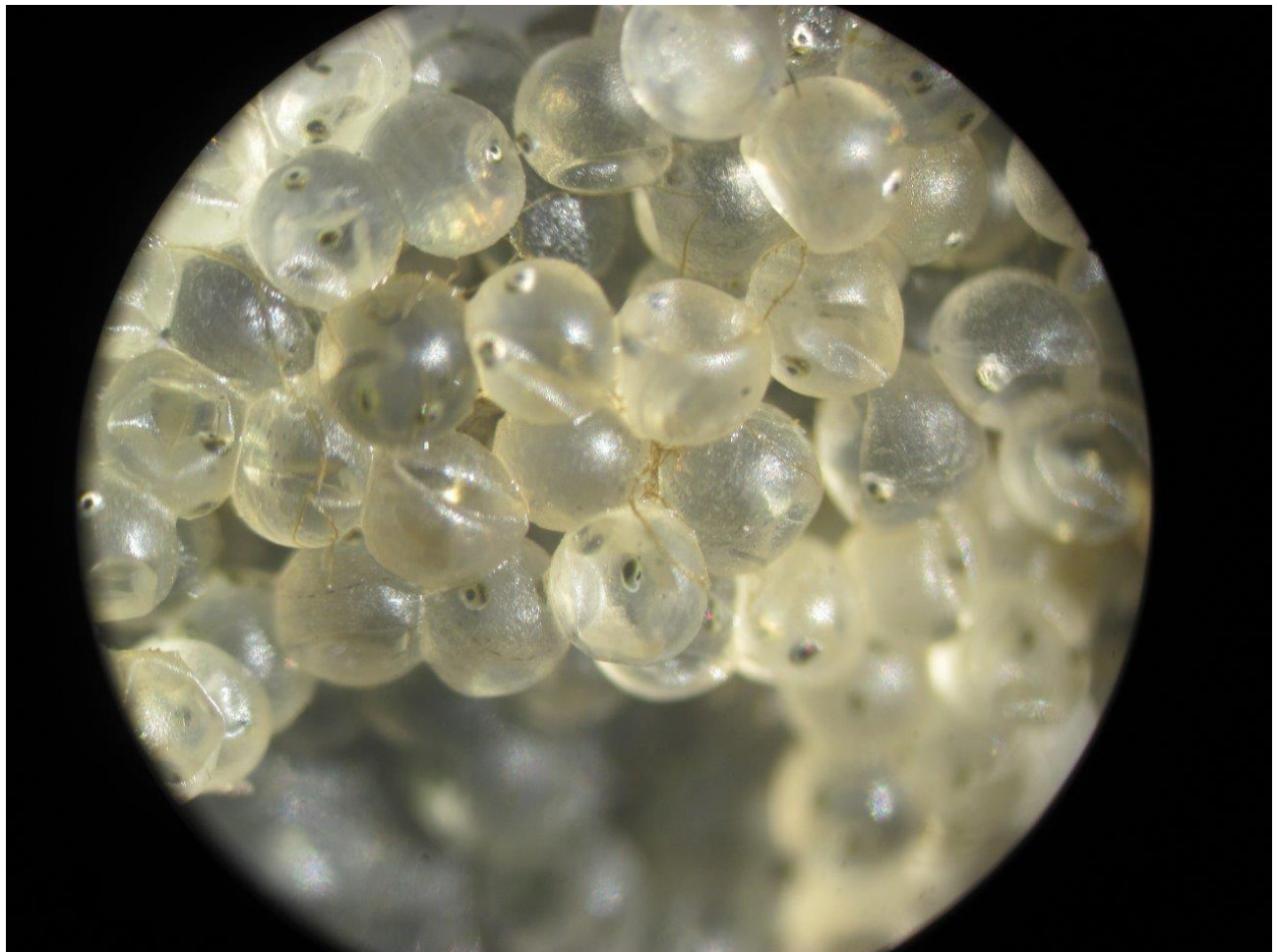
Northerly Spawn end point Lat. 49.639012 X Long. 123.258724	Eyed eggs, with small percentage already hatched out.
Southerly Spawn end point Lat. 49.630100 X Long. 123.252511	Spawn tidal Height a meter greater near the Southern point than at the Northern end.
Length 1.25 Kilometers	Report by John Buchanan
Width average 1 meter	
Density average - Medium	



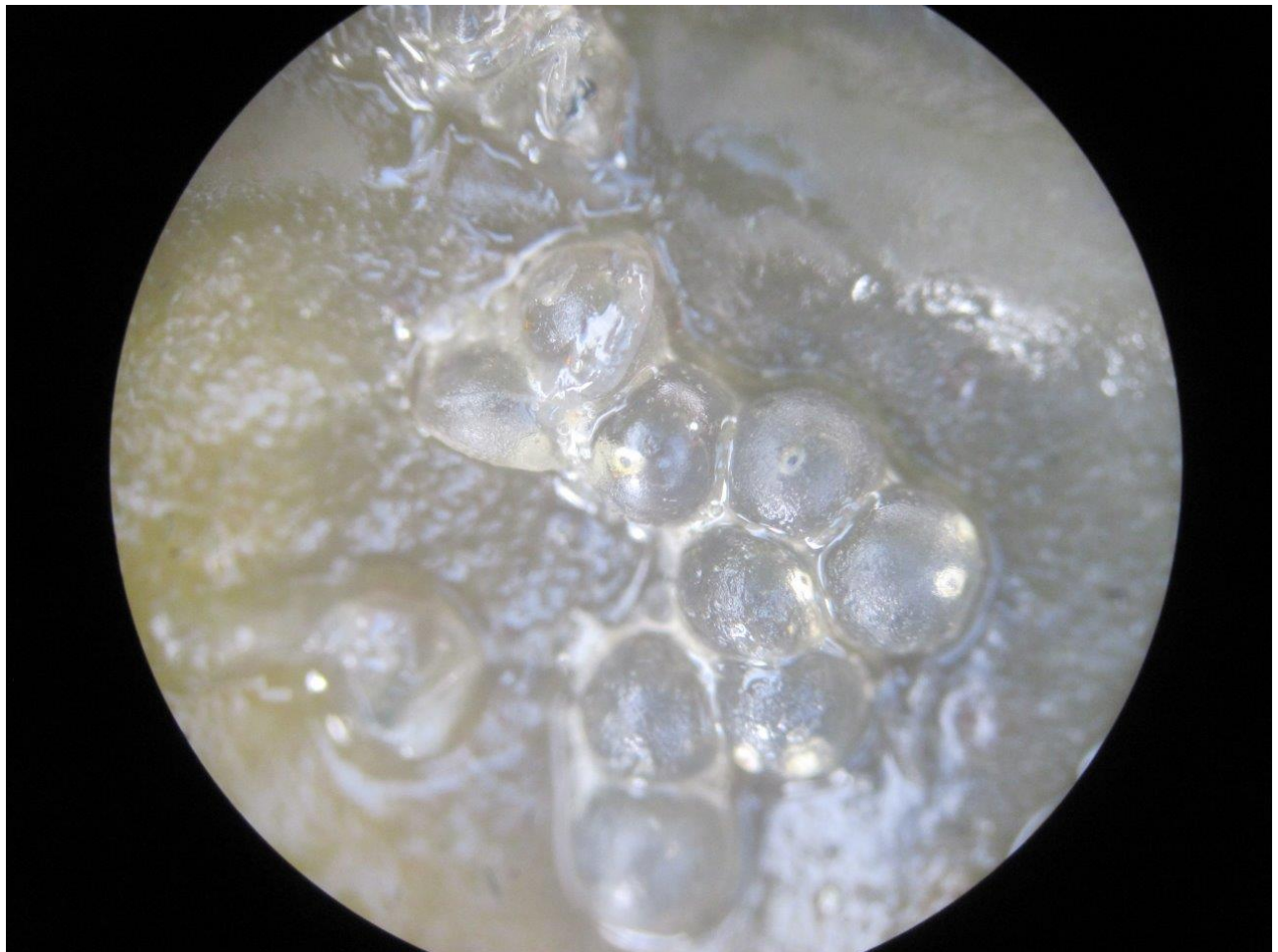
2015 Herring Spawn survey report #8: **May 16 2015**



2015 Herring Spawn survey report #8: **May 16 2015**



2015 Herring Spawn survey report #8: **May 16 2015**



2015 Herring Spawn survey report #8: **May 16 2015**

