

# SQUOOL

October  
2019



Lummi Communications - 2665 Kwina Road - Bellingham, Washington 98226

## Lummi Nation Response to Derelict Vessels at Sandy Point Marina

Submitted by Lummi Natural Resources

On October 17, 2019, yet another derelict vessel (the F/V Furious Sea) sank in the artificial canal system created by non-tribal private property owners who illegally excavated lands at Sandy Point over fifty years ago. No tribal, federal, state, or county permits were ever issued for the creation of this canal system, and the Lummi Nation has remained steadfastly opposed to the current efforts of the non-tribal private property owners to trespass upon tribal tidelands in order to dredge the entrance to this illegal canal system.



This is the second vessel to sink at this location; the first (the F/V Coral Sea) to this day still remains moored to the same private dock. The initial spill associated with the sinking of the first derelict vessel was contained, in part, by the efforts of the Lummi Nation Natural Resources Department (LNR) and LNR has assessed civil fines against the landowner as provided by the Lummi Code of Laws.

LNR staff continues to work with the United States Coast Guard, the State Department of Ecology, and Global Diving and Salvage in order to contain the spill

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## Confirmed: Lummi Now Home to Invasive European Green Crab

Submitted by: Karl W. Mueller, Lummi Natural Resources Department

The first ones detected in the Salish Sea were found in the Sooke Basin, Vancouver Island in 2012. In less than five years, single sojourners were detected south of the US-Canada boundary along the west side of San Juan Island, the Strait of Juan de Fuca, Whidbey Island, and Padilla Bay. In May 2019, remains of one were picked up in Squalicum Harbor, and by July, the invader was captured in Chuckanut Bay. When several live specimens of variable size were collected in Drayton Harbor last month by the Washington Department of Fish and Wildlife, it was not hard to imagine that the creature might be spied somewhere on Lummi's bountiful tidelands. And when intrepid



Lummi Natural Resources Department (LNR) staff members went on the prowl for it last week, find it they did, leaving no doubt that the invasive European green crab, *Carcinus maenas*, was well ensconced at Lummi.

While the account above suggests a recent environmental threat, the European green crab, or EGC, has actually resided in Washington State for more than 20 years. The earliest invaders landed along the open coast as planktonic larvae in the late 1990s, likely the result of ocean-roving ships purging their ballast waters near port prior to loading up with local cargo. Native to the Atlantic coasts of Europe and northern Africa, a fair amount of research has been conducted on the population in Willapa Bay, and of

course, other West Coast bays and marshes where EGC colonized prior to the Evergreen State. Some of the very real concerns about EGC colonizing here are: 1) habitat destruction (e.g., it is a pernicious burrower) leading to altered shoreline ecosystems, 2) possible competition with or predation on small, native crab species such as juvenile Dungeness crab, and 3) the impact of EGC predation on local shellfish resources such as clams and oysters.

Using protocols adapted from the Washington Sea Grant (WSG) Crab Team, university specialists in the statewide response to the EGC invasion, LNR staff deployed several small minnow traps and fukui-style, collapsible traps at multiple

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# Community Updates

## Lummi Youth Academy update:



Recipient for WECU 2019 Millennial Education First Grant

LYA has been awarded \$25,000 for a two year period to help with general operating expenses.

From WECU Homepage: We're honored, through our Education First Grant program, to support local groups working to advance education in Whatcom County. Grantees are selected through a panel review process. This process takes many factors into account, such as their commitment to make a meaningful difference.

We are into our 11th school year of being open. For those not familiar with us, we are a residential shelter/home for up to 24 youth who are between the ages of 13 - 18 years old attending either Lummi Nation School or the Ferndale School district. We offer support systems with

life skills, college prep and academics, as well as preparing for independent living. Our Lummi enrolled youth are first priority, but we also accept descendents enrolled in another tribe.

We are currently accepting applications, if you are interested or would like a tour or more information please call 360-758-4218

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and to mitigate the associated environmental harm resulting from the most recent sinking of the derelict vessel. Once the current response effort has been completed, LNR will impose additional civil fines as appropriate. In addition, the Lummi Nation is engaging with our State and Federal partners in an effort to resolve the ongoing issue of derelict vessels sinking in this area of Sandy Point.



Confirmed: Lummi now home to invasive European green crab  
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Figure 2. Northwest Indian College intern and Lummi fisherman, Daniel Washington, setting a collapsible, fukui-style trap at Sandy Point Heights on Monday, October 7, 2019 (Photo credit: Karl Mueller, LNR).

Figure 4. Male European green crab captured at Sandy Point Heights by LNR staff on Tuesday, October 8, 2019 (Photo credit: Megan Hintz, LNR).



Figure 3. LNR biologist, Nick Jefferson, recording GPS location of minnow trap deployed to capture European green crab at Sandy Point Heights on Monday, October 7, 2019 (Photo credit: Karl Mueller, LNR).



### KEEP A WATCHFUL EYE

Washington's diverse and productive salt marshes and pocket estuaries, already threatened by shoreline development and pollution, now face a potentially destructive invader. The European green crab (*Carcinus maenas*) is considered one of the world's worst invasive species. It can alter shoreline ecosystems and negatively impact economically important species.

Washington Sea Grant, the Washington Department of Fish & Wildlife and partners have teamed up to lead a volunteer-based early detection and monitoring program for European green crab. The program is also designed to improve our understanding of native saltmarsh and pocket estuary organisms, and how they could be affected by green crabs.

The European green crab is a global invader that can alter any ecosystem it infests and negatively impact economically important species.

You can help protect Washington habitats from these crabs in two ways.

- Look for green crabs next time you stroll the beach.
- Get your boots muddy and volunteer with the Crab Team.



## EUROPEAN GREEN CRAB

# Community Updates

## Confirmed: Lummi Now Home to Invasive European Green Crab Continued from Page 1

locations around Lummi Bay and the Lummi Sea Pond. The LNR EGC response team included Karl Mueller, Nick Jefferson, Megan Hintz, Ben Starkhouse, and Daniel Washington, a Northwest Indian College intern and Lummi fisherman. The group targeted intertidal channels and marshlands, preferred EGC habitat, at the mouth of the Lummi River and across the bay at Sandy Point Heights. The greatest concentrations of EGC were found at the Lummi Sea Pond and Sandy Point Heights. Over two nights of trapping, a total of 36 animals were captured at the two locations. The EGC measured approximately 1 1/2" to 2 1/2" across the backs of their shells. These were delivered to the WSG Crab Team for genetic analysis in hopes of determining the source population of the invasive species.

Moving forward, the department will continue sampling EGC on reservation tidelands to improve its understanding of the geographic distribution of the crab and the age or size structure of the population. In addition, over the winter months, LNR will formalize a response plan which may include partnering with regional EGC experts like the WSG Crab Team, implementing a widespread trapping program, assessing possible impacts to local species and habitats, recruiting volunteers, and availing outreach and education materials to the Lummi community. In the mean time, the Lummi community can help by:

1) Avoiding unnecessarily harming or killing small green crabs found on reservation beaches and tidelands. Native species of shore crabs have similar markings or colors as the EGC. You could inadvertently take the wrong action by attempting to do the right thing for the resource and environment.

2) Keeping an eye out for EGC on reservation beaches. If you think you've found an EGC on reservation,

time of your finding, take pictures of the purported EGC from several angles, and send this information to Karl Mueller (KarlM@lummi-nsn.gov) or Nick Jefferson (NicholasJ@lummi-nsn.gov) of LNR for confirmation. Department staff will then respond appropriately. If you think you've found EGC off reservation, report the same information as described above to the WSG Crab Team at crabteam@uw.edu.

3) Becoming aware of invasive species and their potential impacts. There are many on-line resources available to the public. For additional information about EGC or other

aquatic invasive species, please visit the following websites:

a) <https://www.wsg.washington.edu> > WSG Crab Team

b) <https://wdfw.wa.gov/publications/o2o45> > Salish Sea Transboundary Action Plan for Invasive European Green Crab) <https://www.fws.gov> > invasives

d) <https://www.fisheries.noaa.gov>

e) <https://www.invasivespeciesinfo.gov>

## Behavioral Health Hotline

**Call: 360-594-1317**

## Lummi Victims of Crime Hotline

**Call: 360-312-2015**

## LNS Anonymous Tip Hotline

**Text or Call:**

**360-296-0618**

# SQUOL QUOL

The Lummi Squol Quol (SQ) is the official publication of the Lummi Nation. Published monthly by Lummi Communications – the SQ welcomes articles and information including: letters to the editor, news tips, photographs, information and events.

Items printed in the SQ, in no way directly reflect the opinions of the Squol Quol staff or members of the Lummi Indian Business Council (or their employees), unless otherwise noted. All editorials, letters, and guest columns are encouraged for submission with the understanding that all materials are subject to editing for content and/or space.

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Day	Time	Ft.	Time	Ft.	Time	Ft.	Time	Ft.
TU 1	1:17A	0.1	7:55A	8.0	1:34P	3.2	7:22P	8.4
W 2	2:05A	-0.4	9:02A	8.0	2:27P	4.2	7:56P	8.1
TH 3	2:54A	-0.5	10:16A	7.9	3:29P	5.1	8:33P	7.7
F 4	3:47A	-0.3	11:38A	7.9	4:52P	5.7	9:15P	7.2
SA 5	4:44A	0.0	1:01P	8.1	7:02P	5.8	10:06P	6.6
SU 6	5:47A	0.5	2:11P	8.2	8:42P	5.4	11:14P	6.2
M 7	6:54A	0.9	.....	.....	3:04P	8.3	9:38P	4.9
TU 8	12:41A	5.9	7:59A	1.2	3:46P	8.3	10:14P	4.4
W 9	2:09A	6.0	8:55A	1.4	4:19P	8.2	10:39P	3.9
TH 10	3:20A	6.2	9:42A	1.7	4:43P	8.1	10:57P	3.4
F 11	4:14A	6.5	10:22A	2.0	5:01P	8.0	11:15P	2.8
SA 12	5:00A	6.8	10:58A	2.4	5:15P	7.9	11:37P	2.1
SU 13	5:44A	7.1	11:33A	2.8	5:32P	7.9	.....	.....
M 14	12:02A	1.5	6:27A	7.4	12:08P	3.4	5:53P	7.9
TU 15	12:31A	0.9	7:11A	7.6	12:45P	4.0	6:17P	7.8
W 16	1:03A	0.3	7:59A	7.8	1:24P	4.6	6:42P	7.7
TH 17	1:39A	-0.1	8:50A	7.9	2:07P	5.2	7:08P	7.5
F 18	2:18A	-0.4	9:46A	8.0	2:58P	5.8	7:34P	7.3
SA 19	3:03A	-0.5	10:50A	8.0	4:01P	6.1	7:58P	7.1
SU 20	3:55A	-0.4	12:02P	8.1	5:28P	6.3	8:30P	6.8
M 21	4:54A	-0.2	1:11P	8.2	7:19P	6.0	9:57P	6.4
TU 22	5:59A	0.0	2:05P	8.3	8:18P	5.4	11:40P	6.2
W 23	.....	.....	7:06A	0.3	2:47P	8.4	8:55P	4.5
TH 24	1:18A	6.2	8:09A	0.6	3:22P	8.6	9:31P	3.4
F 25	2:46A	6.6	9:06A	1.1	3:53P	8.7	10:09P	2.2
SA 26	4:03A	7.1	9:59A	1.8	4:23P	8.8	10:48P	1.0
SU 27	5:10A	7.7	10:48A	2.5	4:52P	8.8	11:28P	-0.1
M 28	6:12A	8.2	11:37A	3.4	5:22P	8.8	.....	.....
TU 29	12:09A	-0.9	7:11A	8.5	12:26P	4.3	5:53P	8.6
W 30	12:51A	-1.4	8:10A	8.8	1:18P	5.1	6:25P	8.3
TH 31	1:34A	-1.5	9:09A	8.9	2:18P	5.7	6:59P	7.9

Day	Time	Ft.	Time	Ft.	Time	Ft.	Time	Ft.
F 1	2:19A	-1.3	10:11A	8.9	3:31P	6.1	7:37P	7.4
SA 2	3:07A	-0.8	11:16A	8.8	5:37P	6.1	8:20P	6.7
SU 3	2:59A	-0.1	11:21A	8.8	6:39P	5.7	8:16P	6.1
M 4	3:56A	0.7	12:19P	8.7	7:40P	5.0	9:35P	5.6
TU 5	4:59A	1.3	1:07P	8.6	8:19P	4.4	11:15P	5.3
W 6	6:03A	2.0	.....	.....	1:44P	8.4	8:47P	3.7
TH 7	1:04A	5.4	7:03A	2.5	2:11P	8.3	9:08P	3.1
F 8	2:27A	5.8	7:55A	3.0	2:30P	8.2	9:25P	2.3
SA 9	3:26A	6.3	8:41A	3.5	2:47P	8.2	9:43P	1.6
SU 10	4:15A	6.9	9:22A	4.0	3:05P	8.2	10:05P	0.8
M 11	4:59A	7.4	10:02A	4.6	3:27P	8.2	10:30P	0.1
TU 12	5:40A	7.9	10:41A	5.1	3:50P	8.2	11:00P	-0.5
W 13	6:23A	8.3	11:22A	5.6	4:16P	8.1	11:33P	-1.0
TH 14	7:07A	8.6	12:05P	6.0	4:41P	8.0	.....	.....
F 15	12:10A	-1.4	7:54A	8.8	12:54P	6.4	5:05P	7.8
SA 16	12:52A	-1.5	8:44A	8.9	1:51P	6.6	5:26P	7.5
SU 17	1:37A	-1.3	9:37A	8.9	3:03P	6.5	5:39P	7.1
M 18	2:28A	-1.0	10:32A	8.9	4:46P	6.2	6:45P	6.6
TU 19	3:24A	-0.4	11:23A	8.9	6:35P	5.5	8:58P	6.0
W 20	4:25A	0.3	12:09P	8.9	7:07P	4.5	10:46P	5.6
TH 21	5:30A	1.1	.....	.....	12:49P	9.0	7:42P	3.3
F 22	12:37A	5.7	6:34A	2.0	1:25P	9.0	8:18P	2.0
SA 23	2:17A	6.3	7:35A	3.0	1:58P	9.1	8:54P	0.7
SU 24	3:34A	7.1	8:32A	3.9	2:29P	9.1	9:32P	-0.4
M 25	4:37A	7.9	9:26A	4.7	3:00P	9.1	10:10P	-1.3
TU 26	5:33A	8.6	10:19A	5.4	3:31P	8.9	10:48P	-1.9
W 27	6:25A	9.1	11:13A	6.0	4:04P	8.7	11:28P	-2.1
TH 28	7:15A	9.4	12:09P	6.3	4:37P	8.3	.....	.....
F 29	12:09A	-1.9	8:05A	9.5	1:12P	6.5	5:13P	7.8
SA 30	12:52A	-1.5	8:54A	9.4	2:33P	6.5	5:53P	7.2