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Lonely Whale and BC Plastic Bank are determined to collect ocean plastic before they break down into micro plastic which is invisible to the naked eye, but very wide spread in the ocean. The Great Pacific Garbage patch known as a plastic Trash vortex has been gathered up by ocean currents. Chemicals that leach from ingested plastic are believed to be toxic to fish and birds. In 2014 Lush Cosmetics partnered with BC-based Plastic Bank which is tackling plastic pollution from a different perspective. CEO Daniel Katz thinks the world has it all wrong. If your sink is overflowing and walls are getting soaked - the first thing you do is turn off the water or tap. Plastic Bank is defining plastic not as a waste but as a currency which they call Social Plastic - an ethical alternative for manufacturers. They're building stores in places like Haiti, Peru, & Columbia for the ultra poor, where they can exchange plastic for cash, goods such as high efficiency stoves and sustainable fuel and access to Wi-Fi or cellular service. Plastic garbage is their money - you wouldn't think of throwing away bottles if they were \$5. Plastic Bank is getting buy-in from big players, such as Shell oil which has committed to using post-market plastics in its packaging.

### The Brazilian free-tailed Bat

The Brazilian free-tailed Bat has made its way to Salt Spring Island, a Canadian first and in doing so is also shedding light on climate change. The president of Salt Spring Island Conservancy says he doesn't think anyone has seen it but Bat experts were listening to it and said they haven't heard that before. The Brazilian free-tailed Bat is a fast long distance flyer - previously recorded in Idaho, Oregon & South Dakota but never in Canada. So theory is climate change has brought it North. Flight speeds exceeds all other (Bats) bat species tested and may exceed that of fastest birds. Sapre research has clocked bats at 160k an hr. On Salt Spring researchers conducting May to Sept acoustic surveys for bats in 2016 at 18 Hectare, Blackburn Lake Nature reserve recorded Brazilian free-tailed bats

on at least 30 nights. (these<sup>3</sup> acoustic records were also obtained in Vancouver 2016 and two on Salt Spring in 2015. The Brazilian free-tailed bat is abundant with a staple pop. found as far afield as Bolivia, Southern Brazil, Chile, Argentina and the Falkland Islands. It's<sup>an</sup> insectivorous, migratory species forming large colonies with millions of individuals.

Whales - Fisheries Minister Dominic LeBlanc says there will be regulations in place before spring to ensure no boat comes within 200m of Southern Resident Killer whales in Canadian waters. He's heard loud and clear from scientists at a symposium in BC that more needs to be done not just to protect them but also help recovery efforts (and) to boost the pop. There are only 78 Southern resident killer whales in the Salish Sea. Scientific evidence shows noise from large ships and whale watching tour boats is one of the biggest threats to whales as it disturbs their ability to use sound to find food. He says his department is working as fast as possible to get regulations in place to require boats to stay at least 100m from all marine mammals and 200m for killer whales. They will be hosting a round table discussion in Moncton to determine what needs to be done to protect North Atlantic whales. 13 Right whales have been killed by boats and fishing gear in Gulf of St Lawrence this year and 3 more dead in Atlantic waters.

### Carey Island

Plans to build a bridge and semi-permanent road along with land clearing on 2 Islands in the productive "Heart of the Fraser", are raising the alarm for critical spawning habitat for threatened white sturgeon and other fish stocks including pink salmon and oolichen. Major conservation groups & high profile authorities on fish and rivers, like Mark Angelo, Rosenau, and Brian Reddick, have written letters to BC and Fed Gov't demanding a full comprehensive review of the development plans for Herrling and Carey Island. They warn that this will have vast eco-system implications and potential to cause significant long term damage to the so-called

"Heart of the Fraser" from Hope to Mission - considered to be the most ecological and economically productive river in the world. Harvey Andrus set press of 50,000 members of BC Wildlife Fed. says the footprint of this planned development will profoundly and negatively effect critical effect on critical white sturgeon spawning and incubation areas as well as damage juvenile & adult salmonid spawning and rearing habitats. Jake Klsson manager of Jake's Construction has been involved in controversial work related to gravel removal from the lower Fraser. He involved Communications officer Vivian Thomas released a statement on Postmedia on behalf of Ministry of Forest, Lands, Natural Resources and Rural development confirming that they have received proposals to build a bridge and one-semi permanent road across the ecologically productive Herrling Channel home to largest known spawning site for white sturgeon in the lower Fraser and that would potentially impact the habitat. The BC & Fed gov't are reviewing the application. The planned project falls within the land Act and Water Sustainability Act prov. the Fisheries and Navigable Waters Protection Act Fed. Environmental Groups have been negotiating with Kruger Paper to buy the lands for conservation purposes but that fell through and the new private owner is clearing the land for agriculture. The land use act change enables large scale removal of vegetation and it appears that the landowners are now rapidly clearing the land and in some cases reclaiming sensitive riparian areas adjacent to known sturgeon spawning areas and are starting to cultivate crops. The end point of all this activity will be dyking, loss of streamside habitat and change to flows & channel sediments.

of note - end of season estimates show fewer than 36 M pink salmon have returned to the Fraser - less than  $\frac{1}{2}$  of median pre season forecast of 8.7 M and not enough for commercial or sport fishing