Brief notes on a field trip to Dewdney Island (ER#25), June 1987

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From June 6 to June 10, 1987, we visited and sampled 28 lakes on Dewdney Island as part of the research program on coastal stickleback populations. The following is a brief summary and chronology of the field notes. More detailed accounts, including species lists, will be prepared when the collections have been examined in detail.

June 6- zodiac from Lotbiniere Island through shallow passages to small 1 ha island on east side of Dewdney Island, just south of Barnard Island

-set up camp on islet, took zodiac across 200 meter shallow channel and collected some drinking water from creek on Dewdney, then back to islet

-at 2200 h, our malamute husky bolted upright and watched the creek mouth across the channel where we had obtained water. His trembling and exceptional state of alertness were clear signs to us that this was not a usual noise or smell. Through the twilight, we were able, with our binoculars, to make out a handsome brown and black wolf loping down the shore. When the wolf reached the creek where we had obtained our water 6 hours before, it immediately spun 180 degrees without breaking stride and returned in the direction from which it had come.

June 7- packed up collecting gear, put 15 kg in dog's carrying pack, and walked up long estuary with meadows aflame with Indian Paintbrush and Shooting Star. A Sandhill Crane walked slowly in front of us towards the trees and eventually flew low over us and landed near to where we initially saw it. Saw stickleback with brilliant nuptial color breeding in the shallow (5 cm) water

at the head of the estuary.

- headed into the cedar forest on a westerly compass direction towards the first lake and after 30 minutes, we broke through the trees into a classic Sphagnum bog near the lake. Quite unusual biota for bog habitats since predaceous aquatic bugs (Hemiptera), not found in lakes on the Queen Charlotte Islands, were present and aquatic vegetation (Utricularia sp., Menyanthes trifoliata, Nuphar luteum) was much more abundant than observed on bog lakes on the QCI 100 km to the west. The density of blackflies was beyond description and quantification.

- set 3 minnow traps and proceeded to 6 more lakes further inland leaving traps in each. Arrived on west side of island near Murray Anchorage and then retraced our route back to each of the lakes to collect the traps. There are stickleback in virtually all ponds and lakes in very high densities. Our faces and hands are now bloody from the blackflies and we have to wear netting over our heads and as well wear gloves to protect our hands. Where the net tucks into the collar, it presses against the skin and the blackflies are able to bite through the net and obtain their bit of flesh. With this density of flies, it is no wonder that the stickleback were as abundant as they were.

-extensive beaver activity at many ponds but unlike the situation on the Charlottes, water levels, littoral macrophytes and shore line vegetation stabilized. Little evidence of flooding as judged by few dying trees.

-a pair of Red-throated Loons on a 1 ha bog pond, no nest evident

-one Ring-necked Duck and Common Merganser female with 7 chicks in large central lake

-have not seen Belted Kingfishers anywhere

-many well padded trails evident while hiking on bogs between lakes. The dog is often relucant to walk on them or across them. The presence of wolf droppings on the trails confirms our suspicians. We find no evidence of ungulate pellets anywhere on the island. Wolves probably living on rodents as suggested from examination of one dropping.

-ponds and lakes all have low conductivity (50-70 S)

-headed back across island at 2100 h. As dusk approaches, dog is clearly agitated and walks close to us. Wolves are probably nearby and curious.

-back to camp at 2200 hours.

June7- 0500 h, much bird activity in Indian Paintbrush estaury including crane, fourteen Canada Geese, two small flocks of mergansers.

- packed up collecting gear and headed in a southerly direction to another series of lakes.

-same pattern as yesterday. Stickleback in all ponds and lakes independent of size and apparently independent of whether an outlet was present.

- saw a swallowtail butterfly foraging on the bog

-a central bog lake about 1 ha in area has a series of 1 m^2 hummocks. Two Mew Gulls diving at us. Sheila swims out to a hummock and finds a Mew Gull nest with 3 eggs on the tangled flat top of a dwarf Lodgepole Pine. Adjacent hummock has a Red-throated Loon incubating eggs; 2 Canada Geese sitting on shore.

-to 8 ponds and lakes. All with stickleback and all with lush aquatic vegetation. No other fish species observed in all of the collections

-back to camp

June 8- packed up camp and headed south with zodiac along east side of Dewdney to small island with extensive north-facing sand beach at south end of Lotbiniere. This is a spectacular island (ca 3 ha) which should be included in the Reserve boundary but was not during the intial establishment of ER25. It is one of the only regions we saw with high densities of passerines probably due to the diversity of flowering shrubs and berry bushes. Low numbers of blackflies.

-headed west across very rough channel to a large bay on east side of Dewdney. Submerged angular rocks made entry difficult. Headed inland with collecting gear in a broad circle to encompass the 10 lakes and major ponds on the south end of the Island. Two lakes had a pairs of Red-throated Loons. Found one empty nest bowl but no sign of chicks. Extensive vocalizations by the loons indicated that other pairs were present on adjacent ponds as well.

-blackfly numbers even greater than on northern part of the island.
-back to the zodiac by 2000 h and across to the sandy island.

June 9- headed with zodiac to south end of Dewdney fighting a strong headwind from Caamano Sound. Make it around the tip of Dewdney but as we enter the south facing bay, the combination of the partially submerged rocks, breaking swell and boulder beaches limited any safe landing and exit with the zodiac. We return to the sandy island as the storm increases in intensity. Large flocks of surf scoters are now rafting on the protected side of this small island and the bald eagles regularly swooping on them. No successful attacks seen. Found a dead eagle washed up on the sandy beach.

-in evening, storm intensifies. Tent poles snap from wind pressure.
June 10- 0600, we break camp, load the zodiac, and with the wind and swells

pounding on our backs, head north into the protected passages near Barnard Island where we continued collections on the remaining islands in the Estevan group prior to travelling up the west side of Banks Islands for further sampling of the aquatic habitats.

General comments:

While the samples have not yet been examined in detail, the preliminary findings from this survey on Dewdney Island suggests that the stickleback are fundamentally similar across a broad range of bog habitats (small ponds to large lakes). On bog ponds and lakes from the Queen Charlotte Islands, this range of habitats produces major differences in the morphology of the fish. The most reasonable current explanation for this is that the habitats on Dewdney are much younger than those on the Charlottes, perhaps because of more recent deglaciation. Furthermore, the stickleback is the major freshwater fish on Dewdney Island and may be the only species in the majority of systems. It is not clear how the fish obtained access to many of these ponds other than during the post-glacial period when sea levels were higher than at present.

The fish collections have not yet been catalogued (all the stickleback collections are deposited in the University of Alberta Vertebrate Museum collection). The analysis will probably begin in the fall of 1988. Sheila will be putting together a species list of plants later in the year.

We saw no evidence of human presence on the island. The shallow waters and partially submerged rocks surrounding the islands make the area treacherous for fish boats and floatplanes.