## TIDEWATER BREEDING RECORDS OF THE WESTERN GREBE NEAR VANCOUVER. BRITISH COLUMBIA

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The Western Grebe (Aechmophorus occidentalis) is a widespread breeding species in North America, nesting from south-central British Columbia and south-eastern Manitoba south to Mexico (American Ornithologists' Union 1983). This note reports two apparent breeding records near Vancouver, British Columbia, which we believe represent the first breeding records for this species on tidewater.

On 29 August 1986, Ireland observed an adult Western Grebe with two small downy young in the brackish marsh off the Reifel Migratory Bird Sanctuary, Westham Island, British Columbia, at the mouth of the Fraser River. The chicks were seen subsequently on several dates during the following week, together with up to 130 adult Western Grebes that were summering in the area. Migrant Western Grebes do not begin arriving in the Vancouver area until mid- to late September.

On 14 September 1988, Weber observed two downy young Western Grebes, less than half-grown, with a pair of adults in the same area, just off the Reifel Migratory Bird Sanctuary. One of the adults spent nearly the whole observation period (about 15 minutes) with a chick on its back; the other adult dived several times and appeared to be feeding the second chick, which was in the water between the two adults. About 60 adult Western Grebes were present nearby. Subsequently, on 2 October 1988, Brian G. Self and D. Michael Price watched what was probably the same pair of Western Grebes with two young in the same place. In this case as well, one young was riding on an adult's back.

The Western Grebe is a localized breeding species in British Columbia, with confirmed breeding recorded previously at only seven localities, all in the south-central and southeastern parts of the province: Williams Lake, Kamloops Lake, Salmon Arm, Swan Lake near Vernon, the north end of Okanagan Lake, the south end of Kootenay Lake, and Duck Lake near Creston (Weber 1980, Cannings et al. 1987, Forbes 1988). An eighth breeding locality reported by Forbes (1988), at White Lake near Salmon Arm, is unconfirmed (R. Wayne Campbell pers. comm.). The Western Grebe was considered threatened in British Columbia (Weber 1980) because of its local distribution and the vulnerability of its nesting sites to disturbance. A reference to this species' breeding in southeastern Alaska (American Ornithologists' Union 1983) is erroneous (Daniel D. Gibson pers. comm.).

The two breeding records from Westham Island constitute the first known breeding records for Western Grebes in coastal British Columbia and, so far as we know, the first breeding records on tidewater anywhere. Although no nests were actually seen, the small size of the young observed in both 1986 and 1988 makes it certain that they were hatched nearby. The marshes at the mouth of the Fraser River are brackish and include large areas of cat-tail (*Typha latifolia*), and appear somewhat similar to the normal freshwater breeding habitat of Western Grebes. However, these brackish marshes are subjected to a mean daily tidal range of 3.1 meters, with an extreme range of 4.8 meters (Fisheries and Oceans Canada 1989). This must make nesting difficult, and it is likely that most Western Grebe nests started there are unsuccessful. The late dates of the young birds observed in both 1986 and 1988 suggest that they may have resulted from late renestings following earlier, unsuccessful nesting attempts.

## NOTES

It is possible, though we believe it quite unlikely, that the Western Grebe chicks we saw may have been hatched somewhere along the Fraser River, and drifted down to the river mouth with their parents. The only area of potentially suitable habitat along the lower Fraser River is the Ladner Marsh, about 6 km east of the river mouth. However, even the Ladner Marsh has an extreme tidal range of more than 3.0 meters; furthermore, Western Grebes have not been seen there during the breeding season.

A flock of 50 to 100 Western Grebes is present off Westham Island most summers, but there was no indication of breeding prior to 1986. It remains to be seen whether breeding attempts at this locality will become regular or whether these two records represent isolated occurrences in atypical breeding habitat for the species.

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