

Horned Pondweed, *Zannichellia palustris* (Zannichelliaceae), New to the Vascular Plant Flora of the Continental Northwest Territories, Canada, and Deleted from the Flora of the Yukon Territory

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Cody, William J. 1998. Horned Pondweed, *Zannichellia palustris* (Zannichelliaceae), new to the vascular plant flora of the Continental Northwest Territories, Canada, and deleted from the flora of the Yukon Territory. *Canadian Field-Naturalist* 112(4): 711-712.

The first records of *Zannichellia palustris* from the Continental Northwest Territories are documented from just south of Fort Simpson and just north of Fort Good Hope. *Zannichellia palustris* is removed from the flora of the Yukon Territory as a record previously reported as this species has been re-identified as an alga *Nitella flexilis*.

Key Words: Horned Pondweed, *Zannichellia palustris*, Zannichelliaceae, Northwest Territories, Yukon Territory.

Porsild and Cody (1980) suggested that Horned Pondweed, *Zannichellia palustris*, (Figure 1) which they included in the family Potamogetonaceae, should be looked for in shallow, fresh or mildly saline ponds or sluggish streams in the southwestern District of Mackenzie on the basis of a collection from Wood Buffalo Park just south of the Alberta border (water of roadside ditch, Salt Plain 20 miles WSW of Fort Smith, near bridge over Salt River (Figure 2 #1), 59°58'N 112°24'W, W.J. Cody 13737, 19 July 1965 (DAO).

In September 1972, Glenn H. Crum, while conducting a limnology project adjacent to the proposed Northwest Territories Pipeline in the Mackenzie River valley, collected specimens of *Z. palustris* from just south of Fort Simpson (Figure 2, #2) and just north of Fort Good Hope (Figure 2, #3). Data are as follows: District of Mackenzie: scattered along the shore in shallow water, Hare Indian River [66°18'N 128°38'W], Glenn H. Crum 629, 10 Sept. 1972 (WIN, photo DAO); Mackenzie River shore in shallow water near Clark Island [61°50'N 120°56'W], Glenn H. Crum 776, 20 Sept. 1972 (WIN, photo DAO).

Although these specimens were collected long before Porsild and Cody's flora was published in 1980, the authors unfortunately had no knowledge of their existence. *Zannichellia palustris* is therefore new to the flora of the Continental Northwest Territories and Crum's collections are a further extension of the known range northwest of the Fort Smith area of some 1100 kilometers to near the Arctic Circle. It should now be added to the list of rare plants in the Northwest Territories (McJannet et al. 1995).

To the southwest, this species was reported from Kluane National Park in the Yukon Territory (Douglas and Ruyle-Douglas 1978; Cody 1996) and was considered rare in that Territory by Douglas et al. (1981): small pond between Mush and Bates lakes [ca 60°17'N, 137°37'W], Wickstrom 362.1 K-SCL (Canadian Wildlife Service, Winnipeg)



FIGURE 1. Horned Pondweed, *Zannichellia palustris*. [Drawing by Valerie Fulford from Cody (1996)].



FIGURE 2. Distribution of Horned Pondweed, *Zannichellia palustris*, in northwestern Canada (dots 1–3) and location site of the alga *Nitella flexilis* (solid triangle 4) in the Yukon Territory (see text for details).

(Figure 2, #4). To the west in Alaska, Hultén (1968) plotted it from the Seward Peninsula and the vicinity of Norton Sound.

The specimen upon which the Yukon record was based was originally preserved in the Canadian Wildlife Service Herbarium at Winnipeg. This herbarium was broken up at the time of a move and specimens from the Yukon Territory and District of Mackenzie were sent to the Department of Agriculture Herbarium at Ottawa (DAO) and have only recently been incorporated in the collection. The specimen which had been identified as *Zannichellia palustris* has been re-examined by Paul Hamilton and found to be a somewhat similar looking species of an alga (*Nitella flexilis* (L.) Ag.). *Zannichellia palustris* should therefore be removed from the list of rare plants in the Yukon Territory (Douglas et al. 1981) and the flora (Cody 1996).

Zannichellia palustris is a circumpolar species which in Canada occurs from Newfoundland and Nova Scotia to British Columbia and throughout much of the United States. The northernmost site in British Columbia is in the vicinity of Fort St. John (56°15'N 120°31'W) (G. Douglas, personal communication). In Alberta the nearest location to that mentioned by Porsild and Cody (1980) from the Salt Plain southwest of Fort Smith is one at about latitude 54°N near the Saskatchewan border mapped by Packer (1983). In the northern part of its range it is probably often overlooked because of the habitat which does not attract attention any more than the inconspicuous plant which requires close examination to determine whether it is flowering or fruiting and whether or not it is a vegetative pondweed.

Acknowledgments

I thank Paul Catling for his comments on an earlier version of the manuscript and for producing the distribution map; my daughter Leslie Durocher for typing the manuscript; Barry Helquist for locating the voucher specimens at the University of Manitoba; and Paul Hamilton Research Division, Canadian Museum of Nature, Ottawa, for the identification of the *Nitella flexilis* specimen.

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Received 2 June 1998

Accepted 10 September 1998



Cody, William J. 1998. "Homed Pondweed, *Zannichellia palustris* (Zannichelliaceae), new to the vascular plant flora of the Northwest Territories and deleted from the flora of the Yukon Territory." *The Canadian field-naturalist* 112(4), 711–712. <https://doi.org/10.5962/p.358506>.

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DOI: <https://doi.org/10.5962/p.358506>

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