

**Wolffia borealis**

Lemnaceae  
northern water meal, dotted  
water meal



David H. Wagner

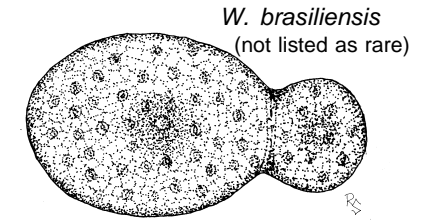
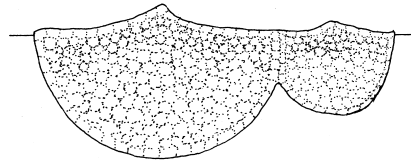
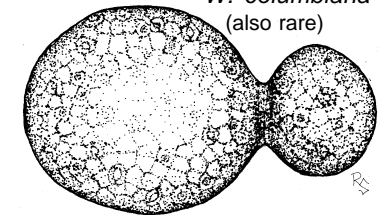
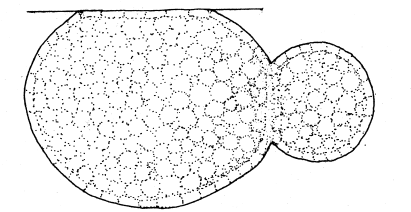
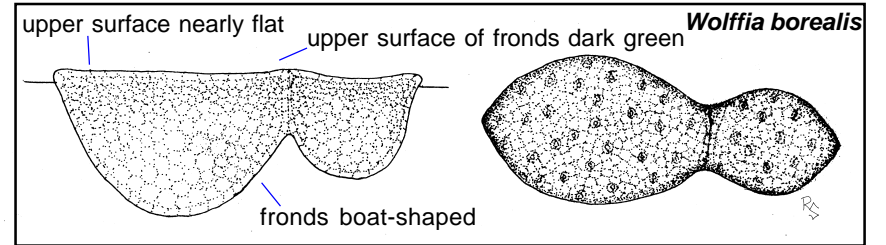
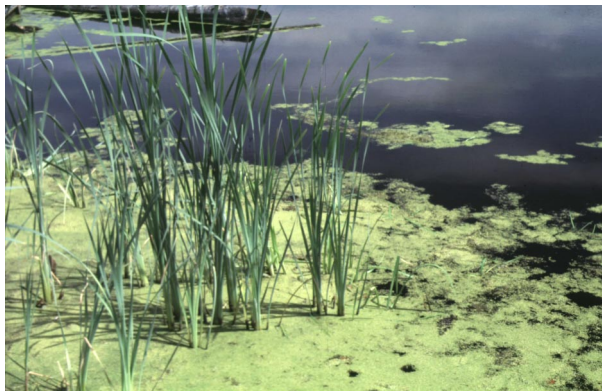


Gerald D. Carr



Gerald D. Carr

Scott Sundberg



1 mm

Miniscule, floating aquatic plants consisting of “fronds,” these generally in pairs; roots absent. **Fronds** ovate from above, 0.7-1.5 mm long, 0.5-1.0 mm wide, 1.3-2 times as long as wide, 0.7-1 times as deep as wide; point at the tip bent upwards; upper surface nearly flat; 3-4 layers of small, dark green cells below the epidermis. **Flowers** rarely seen, hermaphroditic, minute. Insert distinguishing info here. Items such as: height, shape, hair character, flower shape, flower size, color, etc.

**Lookalikes**

**differs from featured plant by**

- W. columbiana* ..... fronds pale green, nearly spherical, widest part below the surface of the water
- W. brasiliensis* ..... fronds rounded at tips, prominent bump in center of upper surface

best survey times  
J|F|M|A|M|J|J|A|S|O|N|D



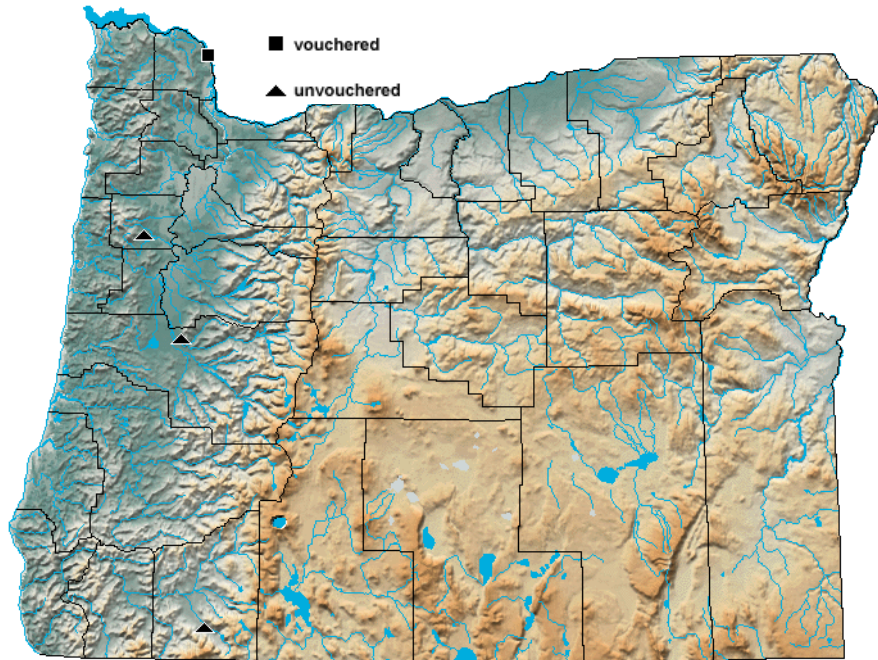
## *Wolffia borealis* (Engelm. ex Hegelm.) Landolt

(= *Wolffia punctata*)

northern water meal, dotted water meal

PLANTS symbol: WOBO

August 2019 status ORBIC: List 2



**Distribution:** Willamette Valley and near the Columbia River in Columbia Co.; California, Washington, Idaho; Midwestern and northeastern US; scattered localities in southern Canada, Central and South America.

**Habitat:** Freshwater ponds and slow flowing ditches in which water has somewhat high levels of organic material. Occurs in natural ponds as well as in log and sewage treatment ponds.

**Elevation:** 100—1300 m

**Best survey time(in flower):** June-December

