

lations, Maftai, Davis, and Mallory believe that the Labrador Sea discovery has conservation implications of its own. Evidence is accumulating that the region is a critical wintering area for many seabird species, now including the Ross's Gull, listed as threatened in Canada, and the Ivory Gull, listed as endangered in Canada. The authors suggest that the Labrador Sea and adjacent Davis Strait, another important wintering area for marine birds, deserve "protected area status" by the Canadian government to preserve these regions' environmental integrity.

## How Do They Do It?

The magical courtship ballets of Western Grebes and Clark's Grebes are iconic features of avian behavior: the synchronized bowing of necks, the delicate presentations of plants

from one bird to the other, and the twists, turns, and dips of heads below the surface. Most dynamic is the dash across the water by two grebes in perfect coordination, which is called the "rushing performance." If you haven't been privileged to see this spectacular duet, or want to refresh your memory, take a look at [tinyurl.com/grebe-ballet](http://tinyurl.com/grebe-ballet).

How do these relatively heavy birds run so far and so efficiently across the water, particularly when no flapping wings provide helpful lift? Finding out requires engineering minds; good videos that show speeds, distances, and details of the action; some familiarity with the properties of fluid mechanics; and finally, analytical, mathematical, and statistical ability to put everything together.

Glenna T. Clifton, Tyson L. Hedrick, and Andrew A. Biewener provide such a comprehensive analysis in a 2015 paper in *The Journal of Experimental Biology* ([tinyurl.com/](http://tinyurl.com/)



The "rushing performance" of **Western** (and Clark's) **Grebes** is a uniquely dynamic part of these species' courtship displays. A recent study demonstrates the complex combination of biomechanical properties necessary for the grebes to "walk on water." *Box Elder County, Utah; June 2012. Photo by © Mia McPherson.*