



Dispersal of invasive and native brine shrimps *Artemia* (*Anostraca*) via waterbirds

Green, Andy J., Marta I. Sánchez, Francisco Amat, Jordi Figuerola, Francisco Hontoria, Olga Ruiz, Francisco Hortas

Limnol. Oceanogr., 50(2), 2005, 737-742 | DOI: 10.4319/lo.2005.50.2.0737

ABSTRACT: North American brine shrimp *Artemia franciscana* have been exported worldwide since the 1950s for use in aquarium trade and fish farming. Aquaculture is expanding along the Mediterranean coast, leading to the release of *A. franciscana* into native *Artemia* populations. *A. franciscana* was first detected in 1981 in Portugal and has since spread to saltworks along the East Atlantic flyway used by shorebirds. Once *A. franciscana* becomes established in a locality, native *Artemia* tend to disappear. To test whether migratory shorebirds can disperse invasive and native *Artemia* between wetlands, we extracted *Artemia* cysts from feces and pellets collected at Castro Marim (Portugal) and Cadiz Bay (Spain) during southward migration. We found that large numbers of viable eggs of *A. franciscana* and native *Artemia parthenogenetica* were dispersed by Redshank *Tringa totanus*, Blacktailed Godwit *Limosa limosa*, and other shorebirds migrating through the Iberian Peninsula. This is the most extensive field demonstration to date that invertebrates can disperse readily via gut passage through birds.

Article Links

[Download Full-text PDF](#)

[Return to Table of Contents](#)

Please Note

Articles in L&O appear in PDF format. Open access articles may be freely downloaded by anyone. Other articles are available for download to subscribers only, or may be purchased for \$10 per article. All L&O articles are moved into Open Access after three years.