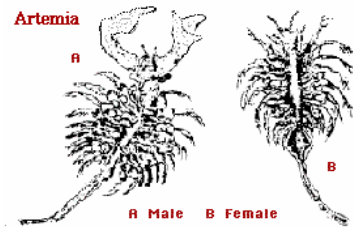


THE SALT LAKE HABITAT

The **salt lake** habitat, contrary to popular opinion, is not 'Utah's Dead Sea'. The lake supports both plant and animal life adapted to the unique conditions a hypersaline lake presents.

29 types of bacteria thrive in the lake and feed on the many species of algae (simple plants) that also live here. Brine shrimp also eat the algae on the surface and the diatoms growing on the bottom of the lake and are in turn decomposed by the bacteria after their life cycle is completed.

Brine shrimp (*Artemia franciscana*) belong to the phylum Arthropoda (joint-legged invertebrates) and are in the same class as shrimp and lobster. The life cycle begins from a cyst that contains an embryo in a dormant state. At times the cysts can be so numerous that they form large brown streaks on the surface of the lake which are harvested by companies that sell them as aquarium food or for use in the testing of toxins and drugs. As water temperatures rise in February and algal colonies become abundant the cysts open to release the larval shrimp. Larvae subsist on yolk reserves for about 12 hours before molting to the next growth stage. During this part of the cycle the nauplii (young shrimp) feed on algae collected by using their legs as filters. Molting will occur about 15 times before an adult size of approximately 10 millimeters in length is reached. If conditions are just right, female shrimp may live up to 3 months laying trillions of eggs.



Brine flies use the shrimp as a source of food and are eaten by birds like the Wilson's Phalarope (pictured) who churn up the shallow water by swimming in tight circles forcing fly pupal cases to the surface. Native peoples have also utilized the brine fly pupal cases as a food source and report the taste to be like roasted pinenuts! California gulls and other shore birds skim the surface of the lake for adult shrimp and brine flies. Golden eagles and great horned owls then hunt these birds.