

Aquatic Invertebrates

Newcomb's snail

Erinna newcombi



SPECIES STATUS:

Federally Listed as Threatened

State Listed as Threatened

State Recognized as Endemic

IUCN Red List Ranking – Vulnerable

SPECIES INFORMATION: *Erinna newcombi* is a freshwater aquatic snail in the family Lymnaeidae. This species is endemic to Kaua'i Island and inhabits the pristine upper reaches of small streams and springs. This aquatic snail requires cool, clean, moderate- to fast-flowing water and appears to exist only in water systems that are perennial in nature, even through severe drought conditions. The ecology and life history of this species poorly understood but likely is similar to other lymnaeid species. Lymnaeids in general eat algae, and lay egg clusters that they attach to submerged rocks and or vegetation. Larvae do not disperse widely, and the entire lifecycle of the snail is likely tied to single stream systems.

DISTRIBUTION: Occurs in ten small stream and spring sites located in six watersheds in the upper reaches of Kaua'i.

ABUNDANCE: Estimated at 6,000 to 7,000 individuals.

LOCATION AND CONDITION OF KEY HABITAT: Pristine upper reaches of ten small streams and springs, including Kalalau Stream, Lumaha'i River, Hanalei River, Kealia Stream, Makaleha Stream, and the north fork of the Wailua River.

THREATS:

- Anthropogenic and natural changes. Changes to hydrolytic systems on Kaua'i threaten this species.
- Predation. This snail is threatened by predation by the invasive snail *Euglandina rosea*, predation on the eggs and adults by two invasive species of sciomyzid flies and two species of marsh flies, and potentially predation by introduced fish and frogs.

CONSERVATION ACTIONS: Specific actions should include the following:

- Establish baseline monitoring data on known populations.
- Survey for other extant populations.
- Ensure adequate stream and spring flows.
- Stabilize and increase populations through habitat protection and predator control.

MONITORING:

- Establish monitoring of populations.

RESEARCH PRIORITIES:

- Elucidate population biology and life history.
- Investigate predator control strategies.
- Investigate captive rearing methods.

References:

U.S. Fish and Wildlife Service. 2006. Recovery Plan for the Newcomb's Snail (*Erinna newcombi*). Portland, Oregon.

U.S. Fish and Wildlife Service. 2007. Newcomb's Snail (*Erinna newcombi*). 5-year Review: Summary and Evaluation. Honolulu, Hawai'i.