

Ovachlamys fulgens (Orchid Snail)

Superfamily: Helicarionoidea (Land Snails)

Class: Gastropoda (Snails and Slugs)

Phylum: Mollusca (Molluscs)



Fig. 1. Orchid snail, *Ovachlamys fulgens*.

[<http://www.jaxshells.org/gude2.htm>, downloaded 26 October 2016]

TRAITS. This species has a thin, transparent shell with a depressed spire and obtuse (blunt) apex. Shell width ranges between 6-7 mm with a height of 4.5 mm. The four whorls of the shell increase suddenly, with the last whorl being twice the width of the penultimate whorl (Gude, 1900). Also known as the jumping snail, the orchid snail gets this other name because of a modification on its tail called a caudal horn (Fig. 1). The snail uses the posterior region of the foot to push itself from substrates, moving rather suddenly (Stange, 2004).

DISTRIBUTION. The Ryukyu Islands of Japan is said to be where the species originated, and could have been accidentally distributed to other countries most likely through the orchid trade. These countries include the Americas (Costa Rica, well established in the USA, Colombia), Trinidad and Tobago of the Caribbean, Hawaii in the Pacific, and several Southeast Asian countries like Thailand and Singapore (Stange, 2004).

HABITAT AND ECOLOGY. Abundantly found in areas where there is a thick layer of organic matter, considerable moisture and a lot of herbaceous vegetation. This species is known to be a pest to orchids and also feasts on *Heliconia*, *Dracaena*, mangoes and avocados (Capinera and White, 2011). This species is also known to feed on a vast array of horticultural plants, however they are generally found among soil litter and on the leaves of plants (Fig. 2) as tall as 3m. These snails become far less active during dry periods (Stange, 2004).

REPRODUCTION. After around 42 days this snail can mature and begin depositing eggs. The reproduction process does not need cross-fertilization to occur. The average width and length of fully hydrated eggs are around 1.75mm and 1.85mm respectively, with a litter or soil crevice of up to 1cm deep containing around three eggs. These small egg clusters can be deposited almost on a daily basis. Eggs of this species can hatch after 10-14 days of absorbing sufficient moisture from its substrate (Barrientos, 1998, 2000). Reproduction takes place in the wet season.

BEHAVIOUR. The most notable behaviour is its ability to jump when it is disturbed, using its caudal horn. From a study in Costa Rica it appears that they prefer to congregate in regions where the average temperature is from 20-27.6°C. The amount of empty shells and population size runs parallel with the rainfall pattern. In the dry season over 90% of the population goes into a state of dormancy due to the unfavourable conditions. They seem to come out and are more active around evening when the temperature is much cooler, rather than during the daytime (Barrientos, 1998, 2000).

APPLIED BIOLOGY. This snail is deemed to be a serious pest to orchids and other economically important plants (Stange, 2004). There is no listing of this species on the IUCN database, however research shows that the species is spreading and is not threatened. It has been suggested that this snail be given national quarantine of the highest order in the USA being a harmful invasive species (Cowie et al., 2009).

REFERENCES

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Fig. 2. *Ovachlamys fulgens* on leaf.

[<http://www.okinawa-kaeru.net/wild/snail/okinawabekkou-3.jpg>, downloaded 27 October 2016]

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