Pomacea canaliculata (Lamarck, 1822)

Pomacea canaliculata (adult size up to 75 mm in height)

Diagnostic features

Distinguished from *Pomacea diffusa* by its larger sized shell (up to 75 mm in height) and deeply channelled suture.

Pomacea canaliculata - living animal. Photo 3 licence Stijn Ghesquiere www,applesnail.net

Animal with distinctive head-foot; snout uniquely with a pair of distal, long, tentacle-like processes; cephalic tentacles very long. A long 'siphon' is also present.

Classification

Pomacea ***canaliculata*** (Lamarck, 1822)

Common name: Golden apple snail

Class Gastropoda

Infraclass Caenogastropoda

Informal group Architaenioglossa

Order Ampullarida

Superfamily Ampullarioidea

Family Ampullariidae

Genus Pomacea Perry, 1810

Original name: *Ampullaria canaliculata* Lamarck, 1822. *In* Lamarck, J. B. P. A. de M. de (1822). *Histoire naturelle des animaux sans vertèbres Tome sixième.*L'auteur, Paris. 1-232 pp.

Type locality: Laguna Guadeloupe ? Santa Fe, Argentina (as 'Rivierès de la Guadeloupe)

Biology and ecology

This species lives on sediment and on aquatic and semi-aquatic vegetation. It lays pink coloured egg masses on plants above the waterline. It has become a major pest of aquatic crops as it eats living plants including rice and taro crops.

Distribution

Introduced from South America into the southern United States, East Asia, islands of the Indian Ocean and New Guinea.

Notes

This pest species has not as yet entered Australia, but ought to be considered a significant risk due to its presence as an invasive in the adjacent Indo-west Pacific region.

Two other south Asian ampullariid species have regularly been intercepted by Australian Biosecurity – they are *Pila ampullacea* (Linnaeus, 1758) and *Pila globosa* (Swainson, 1822). *Pila ampullacea* is traditionally eaten in Thailand and Vietnam and has been largely displaced by *Pomacea canaliculata* in those countries. *Pila ampullacea* has a much more pear shaped shell with a narrower base to the aperture compared to *Pomacea canaliculata* which has a more rounded aperture. *Pila ampullacea* also lacks the deep sutural channel which is present in *Pomacea canaliculata*. *Pila ampullacea* has a narrow to almost closed umbilicus whereas in *Pomacea canaliculata* the umbilicus is wide and deep. *Pila ampullacea* is larger in size (up to 100mm high) compared to *Pomacea canaliculata* (up to 75mm high).
The shell colour varies from bright green to orange-brown with reddish spiral bands. The interior of the shell is yellowish with a suffusion of purple and marked with strong spiral bands. The operculum of *Pila ampullacea* is calcified on the inside whereas in *Pomacea canaliculata* the operculum is completely horny. The eggs of *Pila ampullacea* are calcareous and white and are deposited above the water line on banks and mudflats in shallow depressions. *Pila ampullacea* aestivates during the dry season. The snails bury themselves deep into the mud and can be found to depths of one metre. *Pomacea canaliculata* generally does not aestivate.

Pila globosa has a globose shell with an oval aperture. In contrast with *Pila ampullacea*, *Pila globosa* has a large and deep umbilicus. *Pila globosa* is smaller in size compared to *Pila ampullacea* and *Pomacea canaliculata*. The colour of *Pila globosa* varies from olive green to grey green with a reddish suffusion. The interior of the shell is dull reddish with very faint spiral bands visible, the columella is white. Like *Pila ampullacea* the operculum is calcified on the inside. The eggs are calcareous and white and are deposited above the water line on banks and mudflats in shallow depressions. Like *Pila ampullacea, Pila globosa* aestivates during the dry season.

Further reading

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The Apple Snail website: http://www.applesnail.net

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