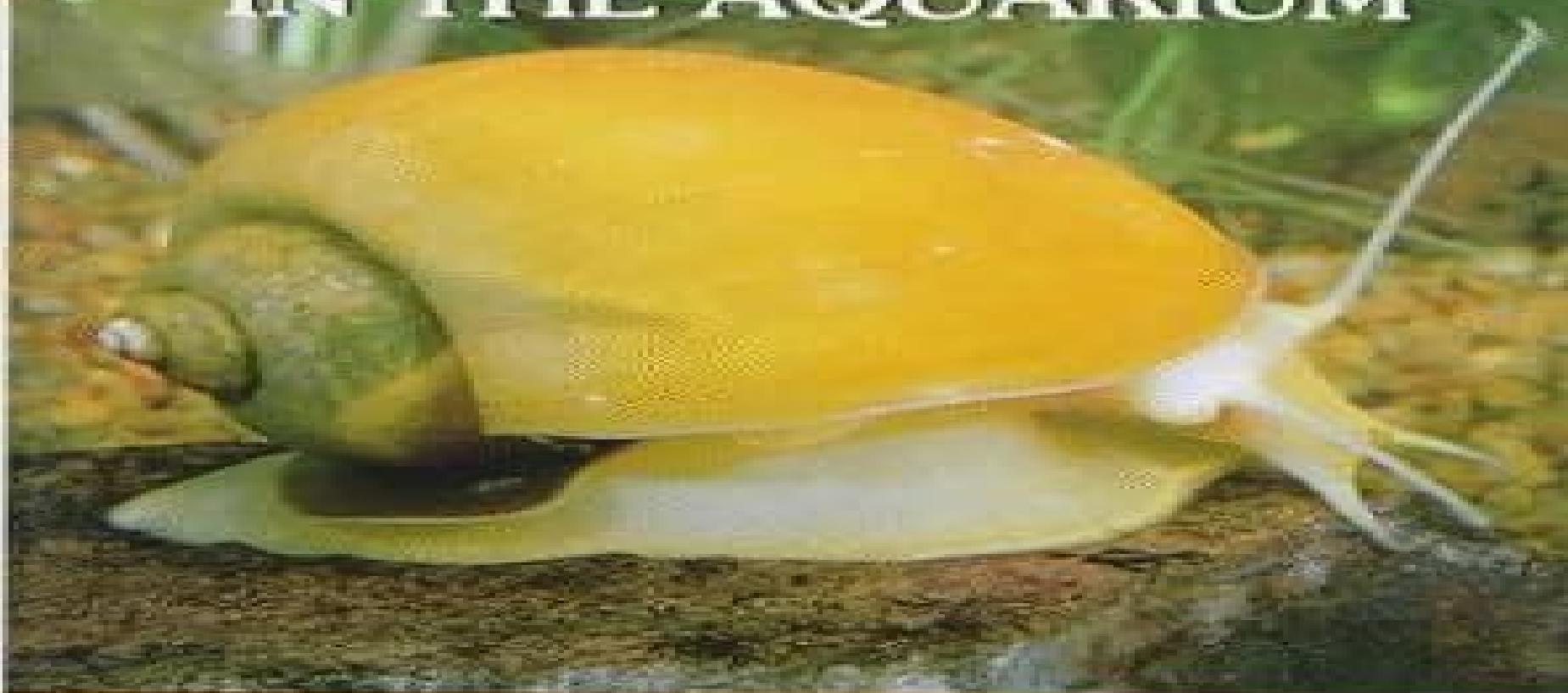


# APPLE SNAILS IN THE AQUARIUM



DR. GLORIA PERERA  
JERRY G. WALLS

# Apple Snails In The Aquarium Ampullariids Their Identification Care And Breeding

**David Kirk**

## Apple Snails In The Aquarium Ampullariids Their Identification Care And Breeding:

**Apple Snails in the Aquarium** Gloria Perera,1996      **A Global Overview of the Conservation of Freshwater Decapod Crustaceans** Tadashi Kawai,Neil Cumberlidge,2016-10-26 This book introduces updated information on conservation issues providing an overview of what is needed to advance the global conservation of freshwater decapods such as freshwater crabs crayfish and shrimps Biodiversity loss in general is highest in organisms that depend on intact freshwater habitats because freshwater ecosystems worldwide are suffering intense threats from multiple sources Our understanding of the number and location of threatened species of decapods and of the nature of their extinction threats has improved greatly in recent years and has enabled the development of species conservation strategies This volume focuses on saving threatened species from extinction and emphasizes the importance of the successful implementation of conservation action plans through cooperation between scientists conservationists educators funding agencies policy makers and conservation agencies      [Bishop Museum Occasional Papers](#) ,2007      **The Zoological Record** ,1997      [Freshwater and Marine Aquarium](#) ,1996      **Apple Snails** Gloria Perera,Jerry G. Walls,1996 Provides the aquarist with complete information about the care maintenance and breeding of ampullariidae apple snails and other aquarium snails together with an insight into their biology and ecology      [Mystery Snails Manual](#) Leo Jones,2025-08-26 Introduction to Mystery Snails What Are Mystery Snails Mystery snails are freshwater aquatic snails belonging to the genus Pomacea commonly found in home aquariums They are also known as apple snails although apple snail is a broader term encompassing several species The term mystery snail typically refers to Pomacea bridgesii a peaceful and hardy species well suited for freshwater aquariums They are called mystery snails because of the curious and often misunderstood way they lay their eggs above the waterline rather than underwater This unique behavior combined with their relatively large size beautiful shell colors and active personalities has made them a favorite among aquarists Mystery snails are known for their usefulness in tanks as natural algae eaters and scavengers However they are not aggressive and do not harm healthy aquarium plants making them ideal tank mates for many freshwater species History and Origins Mystery snails are native to South America particularly the Amazon Basin Their wild ancestors were found in tropical rivers lakes and wetlands Over time different species of apple snails were introduced to other regions some of which became invasive However Pomacea bridgesii the species typically sold as the mystery snail in the aquarium trade is not considered invasive and is safe for responsible aquarium keeping Their popularity in the pet trade increased in the mid to late 20th century especially due to their bright colors low maintenance needs and compatibility with a wide range of freshwater fish and aquatic plants Breeders around the world began developing new shell and body color variations enhancing their appeal to aquarium hobbyists Species Overview and Color Variations The mystery snail Pomacea bridgesii is distinguishable by its rounded shell long siphon and prominent operculum a trapdoor like structure that allows it to close itself off inside the shell for protection These snails have gills and a lung allowing them to

breathe both underwater and at the surface. They are known for their climbing behavior, often scaling aquarium glass and decorations. Key Features: Lifespan - Around 1 to 2 years in captivity. Size - Up to 2 inches in diameter. Behavior - Non aggressive, active during day and night. Diet - Algae, decaying plant matter, and commercial snail food. Color Variations - Commonly Found in the Hobby 1 Gold Bright yellow shell with a light colored body 2 Blue Pale shell with a dark blue or black body 3 Ivory White Completely white or cream shell and body 4 Purple Lavender to dark purple shells often with striped patterns 5 Brown Wild type Earth toned shells resembling wild coloration 6 Jade Green Rare variation with a greenish tint to the shell. Some mystery snails also exhibit striped or patterned shells, adding further uniqueness. The body foot coloration may also vary between albino light and wild type dark depending on genetics.

### **The Complete Guide to Mystery Snail Care**

James W Gerson, 2023-10-09. Discover the Enigmatic World of Mystery Snails. Are you ready to embark on a captivating aquatic journey with the enigmatic mystery snail? Dive into **The Complete Guide to Mystery Snail Care** by Dr. James W. Gerson, your passport to becoming a master of mystery snail keeping and breeding. Why Choose Mystery Snails as Pets? In Chapter 1, uncover the allure of these charming mollusks. They're more than just pets; they're living works of art that bring tranquility to your home. Setting Up the Perfect Habitat: Chapter 2 guides you in choosing the right mystery snail species and creating the ideal snail haven. Equip yourself with the right equipment and learn the art of cycling your aquarium. Creating a Snail Paradise: Chapter 3 delves into housing and environment, revealing secrets to selecting the perfect tank substrate, water quality, and creating a snail-friendly ambiance. Feeding Your Mysterious Companions: Unravel the mystery of mystery snail diets in Chapter 4. From their wild preferences to commercial snail foods and fresh delicacies, you'll become a snail culinary artist. Understanding Snail Behavior and Interaction: Chapter 5 deciphers snail body language and offers care tips for building an enduring bond with your pet. Observing your snail becomes an enchanting pastime. Mastering Snail Health and Common Issues: Chapter 6 equips you with the knowledge to keep your snail in top shape. Learn how to spot signs of a healthy snail, address common issues, and provide proper veterinary care. Unlock the Secrets of Breeding: Chapter 7 takes you into the intimate world of mystery snail reproduction. From creating the perfect breeding conditions to caring for precious snail eggs and hatchlings, you'll become a snail matchmaker. Troubleshooting and FAQ: Chapter 8 offers solutions to your snail keeping challenges. Navigate frequently asked questions and tackle issues like a pro. Dive into Advanced Topics and Varieties: Chapter 9 introduces you to a rainbow of snail varieties and helps you customize your snail habitat. Explore the world of tank mates and create a thriving aquatic ecosystem. Appreciating Mystery Snails as Living Art: Chapter 10 invites you to see mystery snails as living masterpieces. Elevate your aquarium's aesthetics and explore their role in conservation efforts. Appendices for Quick Reference: The appendices include a glossary, recommended products, and conversion tables. Don't miss your chance to become a mystery snail maestro. **The Complete Guide to Mystery Snail Care** by Dr. James W. Gerson is your gateway to a world of aquatic wonder. Dive in now and let the snail adventure begin.

*Colombia Ramshorn Apple Snail* Dr. George

William,2024-04-20 Scientifically named as *Marisa cornuarietis* the Colombian Ramshorn Apple Snail is a distinctive and compelling freshwater gastropod that has grown in favor among aquarium enthusiasts as an interesting and somewhat low maintenance pet We ll explore several facets of Colombian Ramshorn Apple Snails in this extensive introduction offering insightful information to anyone thinking about getting one as a pet Origin and Taxonomy These snails are native to South America mainly Colombia and can now be found in ponds lakes and tranquil rivers among other aquatic habitats According to taxonomy they belong to the Ampullariidae family and share a close kinship with other well known aquarium snails such as Mystery Snails and Giant Apple Snails Physical attributes Colombian Ramshorn Apple Snails are named for its unusual appearance which includes a spiral shaped coiled shell that mimics a ram s horn Their shells which might be light brown dark red or even have striped patterns give aquariums a more attractive appearance The snail s body has two prominent antennae and a powerful foot for locomotion Dimensions and Duration Regarded as medium sized in the aquarium hobby these snails typically reach sizes of 1 5 to 2 inches in diameter Long term partners for committed enthusiasts they can live for several years under ideal circumstances Tank Configuration and Habitat Establishing an appropriate environment is essential to the health of Colombian Ramshorn Apple Snails It is advised to have a large aquarium at least 10 gallons in size to allow for adequate exploration and movement You can choose from a variety of substrates such as sand or gravel and you can add enrichment and hiding places with plants and decorations Water Characteristics Keeping the water at the right temperature is essential to these snails wellbeing They do best in water that is between 7 0 and 8 0 pH which is somewhat alkaline Maintaining a temperature between 72 and 78 degrees Fahrenheit is recommended To stop variations and preserve water quality regular testing and adjustments are necessary Nutrition and Consumption Being omnivores Colombian Ramshorn Apple Snails have a huge appetite for both plant material and debris Premium pellets blanched veggies lettuce zucchini etc and occasionally protein rich treats bloodworms are all part of a well balanced diet Providing a varied diet enhances their general well being and vitality

**Evolution, Molecular Systematics and Invasion Biology of Ampullariidae** Kenneth A. Hayes,2009 Apple snails Ampullariidae are freshwater operculate snails globally distributed in humid tropical and subtropical habitats Nine genera are recognized Afropomus Saulea and Lanistes are African Pila is African and Asian Asolene Felipponea Marisa and Pomella are South American Pomacea ranges from Argentina to the southeastern USA Ampullariid taxonomy and evolutionary relationships have historically been poorly understood especially regarding Pomacea which has implications for research on many aspects of ampullariid evolutionary biology In this dissertation I present the most comprehensive assessment of ampullariid phylogenetic systematics to date and explore some central themes in evolutionary biology that are pertinent to apple snails and their evolution in the Neotropics In reconstructing the phylogenetic relationships of the ampullariids I used two mitochondrial and three nuclear genes Analyses of these genes independently and in combination support the reciprocal monophyly of the New and Old World taxa and confirm the need for a taxonomic

revision of the New World genera. The phylogeny also reveals a trend of increasingly amphibious habits among some of the more derived ampullariids. Such changes in habits appear to have evolved in parallel with increases in siphon length and expansion of the lung, efficacy of atmospheric oxygen uptake, diversification and enlargement of the copulatory apparatus, desiccation resistance, oviposition behavior and egg morphology. All these changes in concert with the changing freshwater systems of the Neotropics during the last 90 myr have probably played a significant role in the evolution of ampullariids. Understanding such processes combined with the well resolved phylogeny have allowed me to better characterize apple snail invasiveness and accurately identify those species introduced outside their native ranges. Finally, since the Ampullariidae are probably the sister group to all Caenogastropoda this phylogeny establishes the basis for future studies that will provide insights into gastropod evolution in general.

*Assassin Snails Care Guide* Andrew O Raymond, 2025-07-03

An Overview of Assassin Snails Their Origin and What Makes Them Unique in Aquariums

Assassin snails, scientifically known as *Clea helena*, previously classified under *Anentome helena*, are freshwater snails native to Southeast Asia, particularly found in countries like Thailand, Indonesia, and Malaysia. These intriguing invertebrates are members of the family Buccinidae and have become popular in the aquarium hobby due to their fascinating behavior and practical utility. What sets them apart from most other snails is their carnivorous nature; they are renowned for preying on other snails, especially pest species that can overrun aquariums.

**Natural Origin and Habitat**

In the wild, Assassin snails inhabit slow-moving rivers, streams, and shallow freshwater bodies with sandy or muddy bottoms. These environments are typically warm and slightly acidic to neutral, with dense plant life and ample detritus. They use their burrowing ability to hide beneath the substrate during the day and emerge when it's time to feed. They play a role in their ecosystem by contributing to natural population control, feeding on weaker or smaller snails and sometimes scouring for carrion or leftover protein from decomposing organisms.

**Appearance and Identification**

Assassin snails are easily recognizable by their distinctive shell pattern. They have a conical shell that displays striking bands of alternating yellow and dark brown, giving them a bumblebee appearance. The shell is typically elongated and adult sizes can range from 1 to 3 centimeters in length. Unlike many common freshwater snails, Assassin snails have a siphon, a small tubular extension of their mantle that allows them to breathe while buried in the substrate. They also possess a muscular foot used for movement and burrowing, and an operculum, a trapdoor-like structure that can close off the shell's opening for protection.

**Unique Predatory Behavior**

What makes Assassin snails truly fascinating is their predatory lifestyle. Unlike herbivorous snails that feed on algae and decaying plant matter, Assassin snails actively hunt and consume other snails. They use a specialized proboscis to pierce the soft tissue of their prey and consume it from within the shell. This makes them a natural and effective solution for aquarists dealing with overpopulations of pest snails, such as pond snails (*Physa*), ramshorn snails (*Planorbidae*), or Malaysian trumpet snails (*Melanoides tuberculata*). Their hunting is stealthy and slow; Assassin snails will often stalk their prey for hours, sometimes working in groups to overwhelm larger snails. Once they lock onto a target, they

extend their long flexible proboscis to penetrate the shell and feed Behavior in Aquariums In a captive environment Assassin snails are relatively peaceful toward fish shrimp and plants making them suitable for many community tanks Their aggression is almost entirely limited to other snails especially if live food is scarce They are most active at night or during feeding times and they often spend long periods buried under the substrate They are known to scavenge for protein rich detritus uneaten fish food or deceased tank mates if no live snails are available although they strongly prefer live prey This predatory instinct makes them not just a functional part of the aquarium ecosystem but also a subject of fascination for hobbyists Why They Are Popular in Aquaria Assassin snails are sought after in the aquarium trade for several reasons Natural pest control They reduce unwanted snail populations without harsh chemicals Minimal maintenance They are hardy and adapt well to a variety of freshwater tank conditions Unique appearance and behavior Their bold shell pattern and carnivorous habits make them visually and behaviorally interesting Compatibility They coexist well with many tank mates especially invertebrate safe or peaceful community tanks [Mystery Snail Handbook](#) Adams J Dawson,2025-06-28 Whether you're a beginner aquarist or a seasoned hobbyist the Mystery Snail Handbook is your ultimate guide to understanding caring for and appreciating one of the aquarium world's most captivating invertebrates *Pomacea bridgesii* the mystery snail These peaceful colorful and eco friendly gastropods offer more than just tank cleaning capabilities they bring personality charm and ecological balance to any freshwater aquarium In this comprehensive guide you'll explore everything you need to know to keep your mystery snails thriving healthy and happy Inside you'll learn The wide array of color morphs and species variations from gold and magenta to blue and ivory How to select healthy snails and recognize signs of illness or shell damage Best practices for tank setup water quality and maintaining optimal environmental conditions What mystery snails eat and how to supplement their diet for strong beautiful shells Responsible breeding methods egg laying behavior and how to raise baby snails How to observe fascinating snail behaviors like sleeping floating and exploring Tips for aquascaping with snails and the role they play in a thriving tank ecosystem Real life stories and expert advice from dedicated snail owners and enthusiasts Whether you keep a single mystery snail or a thriving snail colony this book equips you with science backed care advice practical experience and fun facts that deepen your connection with these unique creatures Perfect for aquarists pet lovers and nature enthusiasts alike Mystery Snail Handbook is more than a care guide it's a celebration of the slow spiral shelled wonders that quietly brighten our aquariums and our lives [The Recent Apple Snails of Africa and Asia](#)

**(Mollusca: Gastropoda: Ampullariidae: Afropomus, Forbesopomus, Lanistes, Pila, Saulea)** Robert H. Cowie,2015

[Molecular Evolution of Egg Perivitelline Fluid Proteins in Apple Snails \(ampullariidae, Caenogastropoda\)](#) Chi Ho Ip,2019 Gastropods are a highly diverse clade of molluscs that includes limpets snails and slugs and the only molluscan lineage with members that have successfully colonized land Amphibious operculate freshwater gastropods Ampullariidae exhibit various morphological and physiological adaptations to their respective habitats which make them ideal candidates for studying the

mechanisms underlying adaptive evolution in gastropods. In the last two decades there have been interests in the diverse reproductive behaviors of ampullariids while most genera of apple snails deposit their eggs in a jelly mass underwater two genera i.e. *Pomacea* and *Pila* deposit calcareous egg clutches above the waterline. The shift from aquatic to aerial oviposition required the concerted evolution of the adult snail's egg laying behavior as well as the composition of the egg. Today only limited genomic information is available for this ecologically important family except in the genus *Pomacea* which hinders the investigation of its evolutionary history and mechanism. I have therefore developed the publicly accessible transcriptome database AmpuBase as molecular resources to support various transcriptomic and proteomic analyses. The database comprise de novo transcriptome assembly of eight species that belong to five representative genera of Ampullariidae. For each species there were 20 730 to 35 828 unigenes with predicted open reading frames with an N50 ranging from 1 320 to 1 803 bp and 69.7% to 80.2% with functional annotation. Since the ability of laying out of water eggs is one of the key steps of terrestrialisation for aquatic snails I analysed the proteome of perivitelline fluid (PVF) for the eggs of *Marisa cornuarietis* that were laid underwater. The PVF proteome of *P. diffusa* also investigated to reveal and compare the biochemical adaptation between *P. diffusa* clade and *P. canaliculata* clade. Using LC MS/MS coupled with transcriptome database I identified a total of 36 and 32 PVF proteins from *M. cornuarietis* and *P. diffusa* respectively. Comparison of PVF proteomes among the aquatic *M. cornuarietis* and three aerial ovipositing ampullariids *P. diffusa*, *P. canaliculata* and *P. maculata* showed that the four species all contain several major perivitellins that are important for the nutrition of the embryos. *M. cornuarietis* invests heavier in protection against pathogens whereas the unique presence of calcium binding protein and their high albumen gland expression in three *Pomacea* implying the importance of the novel acquisition of this protein for forming the calcareous eggshell of terrestrial eggs. I also found the absence of a neurotoxin PV2 in *M. cornuarietis* and *P. diffusa* PVF indicating this protein was acquired after the divergence between the ancestors of *P. diffusa* clade and the *P. canaliculata* clade and protects *P. canaliculata* and *P. maculata* eggs against terrestrial predators. Evolutionary analyses detected the involvement of gene duplication, positive selection and neofunctionalisation in the formation of several major PVF proteins. With the availability of ampullariid genomes and transcriptomes I conducted an integrated evolutionary analysis of *Pomacea* PVF with an aim to understand the molecular adaptations underlying the transition from underwater to terrestrial egg deposition. There were many expanded gene families in the New World ampullariids some of them may be important for their evolution towards terrestrial egg laying. The PV1 oligomer protein was a novel protein acquired by the common ancestor of New World species to nourishing their terrestrial eggs. Meanwhile gene duplication followed by neofunctionalisation of MACPF tachylectin paralogs has contributed to the novel acquisition of the toxic PV2 protein in the *P. canaliculata* species complex. Overall using Ampullariidae as an example my study has demonstrated the power of integrative genomics to address various fundamental questions in evolutionary biology. The findings have enhanced our mechanistic understanding of invasion of terrestrial

habitats by aquatic gastropods

## Unveiling the Magic of Words: A Overview of "**Apple Snails In The Aquarium Ampullariids Their Identification Care And Breeding**"

In some sort of defined by information and interconnectivity, the enchanting power of words has acquired unparalleled significance. Their capability to kindle emotions, provoke contemplation, and ignite transformative change is truly awe-inspiring. Enter the realm of "**Apple Snails In The Aquarium Ampullariids Their Identification Care And Breeding**," a mesmerizing literary masterpiece penned by a distinguished author, guiding readers on a profound journey to unravel the secrets and potential hidden within every word. In this critique, we shall delve into the book's central themes, examine its distinctive writing style, and assess its profound effect on the souls of its readers.

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