

# Growing the Cockle-shell Orchid

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- Pictures from Lim Xuan Hong & various Internet sources •

## Introduction



**Above:** Flower of Cockle-shell orchid (*Prosthechea cochleata*).

The cockle-shell orchid (*Prosthechea cochleata* syn. *Encyclia cochleata*, *Anacheilium cochleatum*, *Epidendrum cochleatum*) is an epiphytic orchid which can be found throughout Central America, the West Indies, Colombia, Venezuela and southern Florida. It is a sympodial, new world orchid that is commonly grown by orchid hobbyists around the world. The cockle-shell orchid is also the national flower of Belize in Central America, where it is called the 'Black Orchid'.

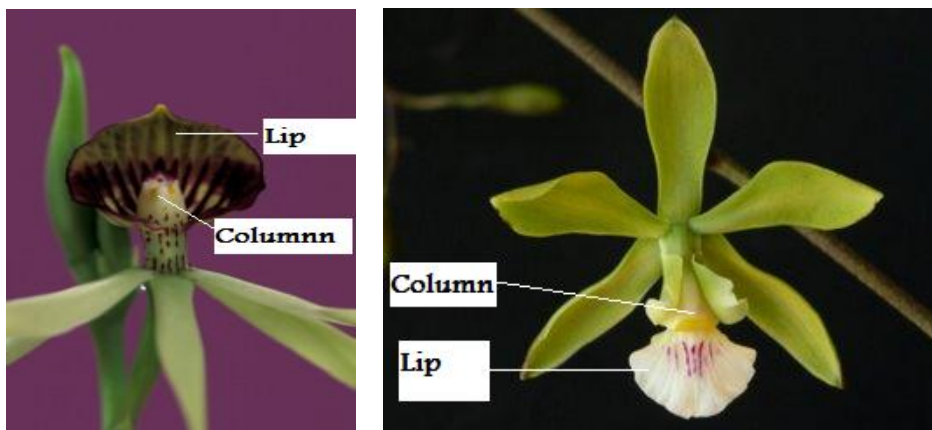


**Above:** Map showing the location of Belize (shaded in red).  
(Source: Wikipedia – The Free Encyclopedia)

In Florida, where the cockle-shell orchid is listed as endangered, many wild plants develop a variation that has three anthers, which contain masses of pollen. This ensures that the plant is self fertilised (autogamous) so as to ensure its survival. In other parts of the world, the cockle-shell orchid commonly has only one anther. This has led some taxonomists to name the variety in Florida as *Prosthechea cochleata* var. *Triandra*. Taxonomists conclude that individuals of the cockle-shell orchid in Florida may all have descended from a single plant, whose tiny seeds may have been transported there by a storm or a bird.

## Unique morphology

The unique morphology of the cockle-shell orchid is the main reason why collectors have found this plant to be attractive. Each oblong pseudobulb usually bears two linear non-succulent leaves. The flowers are unusual because the flower's labellum (lip) forms a "hood" over the column. This makes the flower effectively upside down, or resupinate. Other than being described as cockle-shell shaped, other plant cultivators have described this plant as octopus looking, due to the lime green petals and sepals dangling like an octopus' tentacles.



**Above:** Comparison of *Prosthechea cochleata* and *Encyclia tampensis* – The cockle-shell orchid has resupinate flowers.

The cockle-shell orchid can bloom for up to 6 months usually starting in spring with an apical, erect, inflorescence that can produce many flowers. The flowers open successively and are, unfortunately, non-fragrant. There are different varieties which vary in inflorescence length, with some varieties having a flower spike up to 6 inches in length.

## Cultivation

The cockle-shell orchid has various characteristics which makes it an ideal orchid for cultivation.

### Easy maintenance and long bloomer

The cockle-shell orchid can bloom for up to 6 months per inflorescence if it is a large healthy plant, and in my experience every mature pseudobulb will produce one spike of flowers. Furthermore, each flower can last for a few weeks, unlike the flowers of other orchids like *Bulbophyllum sp.* which usually last only 1 day. Hence this is one of my very few orchids which are in bloom almost every day. This orchid is also relatively forgiving and very easily maintained, and should be treated similar to *Cattleya* or *Dendrobium*. It is a medium sized orchid smaller than other large orchids such as *Cymbidium* or *Dendrobium*, hence can easily be accommodated in a corridor or windowsill. Detailed care instructions are elaborated below.



**Above:** Inflorescence of *Prosthechea cochleata*.

## Unique shape and colour

The cockle-shell orchid has a very unique shape which differs from most usual orchids. As described in its name, the flowers resemble clam shells or cockle shells, due to the shape and striped patterns on the labellum. The petals and sepals of its flower have a cool, soothing lime green shade while in contrast with the deep maroon/purple lip. The additional patterns such as stripes and spots on the lip and column make the flower more realistically like a clam and hence add on to the uniqueness of this flower.

## How to grow

### Light

The cockle-shell orchid prefers medium light around 2000 foot candles. I keep this plant in a bright corridor where it grows and blooms well. Morning or evening sun is best for this plant while bright shade should suffice. Avoid placing the cockle-shell orchid in full sun as its thin, non succulent leaves may burn easily. If given too little light, the plant may refuse to bloom as often.

### Temperature

The cockle-shell orchid originates from the rainforests of south and Central America and prefers intermediate to warm temperatures, hence is suitable for Singapore's weather.

### Humidity

A humidity of 50% or higher is ideal for the cockleshell orchid. Singapore's humidity usually ranges from 60-80% and is suitable for this plant. If grown in an air-conditioned room, place a water tray with gravel below the plant to boost the area's humidity. Lack of humidity may result in spider mite attack or dehydration and slight browning of leaves.

### Fertilizer

Use general orchid fertiliser e.g. Gaviota once a week. Mix the fertiliser into the water when watering your plants. Alternatively, use slow release fertiliser and sprinkle the pellets around the roots.

## Water



**Left:** The velamen of healthy orchid roots turn green when in contact with water.

The cockle shell orchid prefers to be watered evenly throughout the year and it prefers constant moisture at the roots. Water the plant when the medium is dry. When the plant is in flower or showing signs of budding do not let it dry out for too long. When watering, check that the white roots turn green on contact with water – this means that the root is healthy and growing.

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## Flowering

This plant can flower at any time of year whenever a new growth is mature. The flowers are 2.5 to 3 inches in size. The flower spikes can bloom for 3 to 6 months or longer. The colours are light green with chocolate markings in the upside down lip.

## Propagation and Repotting

Propagate by splitting the growths when the plant is too large for the pot. Repot after flowering with either a bark mix or tree fern mix.

## Pollination and seeds



**Above:** Seed pods of cockle-shell orchid.  
(Source - Plants of Viñales: A Pictorial Guide - *Encyclia cochleata*)

The cockle-shell orchid will form seed pods when pollinated as shown in the picture above. Seed pods approximately take 3 to 5 months to ripen and require sterile sowing of the seeds in nutrient flasks to germinate.

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## References

Plants of Viñales: A Pictorial Guide  
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## Feedback for this Article

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