Title: “Snakeskin chiton with top shells”

Description: Snakeskin chiton (*Sypharochiton pelliserpentis*), Marlborough Sounds

Photographer’s name: Noelle Bennett

Where and when: Muzz’s Cove, Pelorus Sound. April 2021

Sustainability: This photograph is one of seven of chitons that you will find in the *Ecosystems Photography* galleries. Check them all out to read about different aspects of their lives, conservation challenges and ecological significance.

Molluscs are known to play important ecological roles in the different aquatic and terrestrial ecosystems of the world, and it has long been recognised that they are indicators of poor water quality. Chiton have already survived so many catastrophic events but one has to wonder whether they can continue to survive. They are potentially threatened by the same effects of climate change and ocean warming as other marine life which could well be a cause for concern.

Despite their crusty armour, chitons are eaten by sea stars, crabs, sea snails, birds, and fish. One of the main predators of green chiton are oystercatchers. The birds first strike a sharp angled blow on the shell plates and if this does not dislodge the chiton then the bird will apply pressure on the margin between the foot and the rock surface and use a scissor-like motion to release the grip. Once prised off, its valves are removed and the oystercatcher eats the chiton in one piece.

Photographer’s notes: Chiton are much harder to photograph than you would give them credit for when you first find them. Generally speaking, the only time that they can be found is at low tide with springs giving an even better chance to find them. Snakeskin chiton are a little more forgiving to photograph than green chiton for the reasons mentioned above but at around 30mm, they are still small and that in itself presents challenges. And they may still decide not to pose for you choosing instead to slide off to the darker side of their rock. And that’s without taking into account the light levels and the fact that the chiton may well be wet which adds a whole extra dimension into the equation. But with a bit of patience you can get a beautiful image in a sort of understated way.

Photo specs: This image was focus-stacked using 50 images taken at two unit increments to ensure the whole of the chiton was in sharp focus.

Technical specs: The image was taken using a Panasonic DC-G9 camera and a Panasonic Leica DG Macro-Elmarit 45mm f/2.8 macro lens. Exposure details - 1/160 sec at f5.8 with an ISO 200 and a focal length of 45mm (90mm full frame equivalent)

Digital specs: 6208 x 5593 pixels (34.72MP) @ 300dpi

Key words: chiton, molluscs, snakeskin chiton, Papatua, endemic, tidal zone, Marlborough Sounds, New Zealand, intertidal zone, rocky shores, Sypharochiton pelliserpentis, Noelle Bennett, Ecosystems Photography, conservation, sustainability

Price: $200 (incl. GST) for use of the digital image. Visit www.ecosystemsphotography/sales for details & to order, or to get a quote if you would like a high-quality print.

Donation: The price includes a $100 donation to a sustainability organisation or project of your choice, or otherwise to *iNaturalist NZ – Mātaki Taiao* – https://inaturalist.nz.

We recommend that the donation goes to *iNaturalist NZ* because they are supporting a wide variety of community-led biodiversity monitoring programmes throughout New Zealand, including for the intertidal habitats featured in this series of photographs. iNaturalist receives species records from citizen scientists, maps the data, and shares the information so that it can be used by scientists, policy makers, and the public. They invite everyone to submit photographs and will find an expert to help by identify the plants and animals in the photographs.

iNaturalist NZ need funds to maintain a database for monitoring long term trends in biodiversity in places like the intertidal where the chitons pictured here were found.

Image ref: NB#016 (please use this reference in all orders and correspondence).

Noelle Bennett
5 December 2021