

## **Cape Campbell Coastline: invertebrates of conservation interest**

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- Relatively little published work on invertebrates from along this coastline
- Most information will be on individual species, rather than faunas
- The habitats most at risk from human impact are soft shore habitats
- Some individual species will be host plant-specific, so host plant presence is essential to their continuation

### **Threatened species known from this stretch of coast**

***Latrodectus katipo red katipo***; the dune system south of Cape Campbell was assessed by Patrick (2002) as one of the key sites nationally for this species.

Conservation status as at 2009 (there was a more recent iteration for spiders published in 2012 but I don't have access to this; the status class for this species remained the same as in 2009, but I can't be sure about the secondary criteria and qualifiers):

At Risk: Declining B(2/1) RR

B = large population with low to moderate ongoing or predicted decline

(2/1) = total area of occupancy < 100km<sup>2</sup>; ongoing or predicted decline of 10-50% over the next 10 years

RR = range restricted (a reference to the specific habitat requirements of katipo)

***Notoreas perornata*, subsp. "Cape Campbell" pimelea moth**; on coastal *Pimelea* behind active beach zone in the dune system south of Cape Campbell (B. Patrick, pers. com.) Currently, the main *Pimelea* sites in this area are just south of The Needles and just south of the mouth of Mirza Creek (M. Aviss, pers. com.).

Conservation status as at 2015:

Nationally Endangered B(3/1) RR, St

B = small stable population

(3/1) = total area of occupancy < 10ha; population stable and predicted to remain so over the next 10 years.

RR, St = range restricted, stable

Note that the presumed stability of this population was determined before the Kaikoura Earthquake and did not allow for this event and its outcomes. The long term continuity of this species relies entirely on the continued presence of its host plant. Elsewhere, it is known from the Cloudy Bay foreshore (behind the active beach), between the Wairau diversion and Rarangi Road. It may be present in the occasional *Pimelea* plant on the clay bluffs above Marfells Beach. It was once present at Gore Bay but disappeared when its hostplant population disappeared.

**Species of interest found in the Cloudy Bay coastal habitats study (Dugdale, 2001) which may occur along the Cape Campbell coast:**

***Dichromodes* sp. "Cloudy Bay"** Cloudy Bay looper moth; larva presumed to feed on lichens on cobbles along the sea front of Cloudy Bay foreshore, behind the active beach zone, between the Wairau diversion and Rarangi Road. This species was also found near the sea front at White Bluffs in 2002. It is possible that it could occur further south also.

Conservation status as at 2015:

Nationally Endangered B(3/1) OL

Status and secondary criteria as for *Notoreas perornata* subsp. "Cape Campbell" above.

OL = one locality, which indicates that the team scoring was not aware of the second location at White Bluffs

Note that any potential habitat along the Cape Campbell coast is likely to be limited in extent and potentially already impacted by beach traffic.

***Kiwaia* sp. "Cloudy Bay"** Cloudy Bay twirler moth; found on or near, and assumed to be associated with, *Raoulia* mats along the foreshore, behind active beach zone, between Wairau diversion and Rarangi Road.

Conservation status as at 2015:

Nationally Critical A(3) CD, EF, OL

A (3) = very small population; total area of occupancy < 1ha

CD, EF, OL = conservation dependant, extreme population fluctuations, one locality

Note that this species is a "long shot" for the area of interest. It has been searched for, without success, along the beach west of Marfells Beach Road (i.e. between Lake Grassmere and the sea) and at a few sites further south, between Kekerengu and Clarence River.

***Ericodesma* sp. cf. *aerodana*** pimelea leafroller; on *Pimelea* along sea front, behind active beach zone (also known from Kaitorete Spit). Another species totally dependent on the presence of its host plant. Its total distribution is much greater than the looper moth and it does not appear to have a current conservation ranking. It is highly likely to be present in the Cape Campbell area.

***Anabarhynchus ?fluviatilis*** stiletto fly; in foreshore area at Cloudy Bay. The species was originally described from two specimens at Kowhai River, Kaikoura; the Cloudy Bay specimens show slight differences but essential features are the same. If this species is the same at both sites, it is likely to be widespread along the coast. I do not have access to current conservation rankings for Diptera.

***Mecodema oblongum*** ground beetle; found in the Cloudy Bay foreshore area behind the active beach zone, between Wairau diversion and Rarangi Road. This was considered to be an unusual presence in this habitat and may represent the southernmost known extent of the species to date. It may not be very likely to occur in the Cape Campbell area.

**Note that I have removed the sand ground beetle *Brullea antarctica* from this list as it may not be present on the South Island east coast (!).**

## References

Patrick, BP, 2002. Conservation status of the New Zealand red katipo spider *Latrodectus katipo* Powell, 1871). *Science for Conservation* 194. Department of Conservation, Wellington. 33p.

Dugdale, JS, 2001. Cloudy Bay coastal habitats. Entomological values of the foreshore and associated inland habitats. *Nelson/Marlborough Conservancy Occasional Publication* 49. Department of Conservation, Nelson. 31p.