

**Approved Conservation Advice for**  
***Antipodia chaostola leucophaea* (Tasmanian Chaostola Skipper)**

(s266B of the *Environment Protection and Biodiversity Conservation Act 1999*)

This Conservation Advice has been developed based on the best available information at the time this conservation advice was approved; this includes existing plans, records or management prescriptions for this species.

**Description**

*Antipodia chaostola leucophaea*, Family HesperIIDae, also known as the Tasmanian Chaostola Skipper, belongs to a group of butterflies commonly known as ‘skippers’. The name ‘skipper’ comes from the rapid and erratic flight typical of species of this family (TSS, 2008). Features which distinguish skippers from other butterflies include a broad head, antennae that are widely spread apart, and a dominance of brown and yellow in their body colour. The adult Tasmanian Chaostola Skipper has a stout body which is mainly brown in colour. The wings are brown (to brownish-grey on the underside) and have pale yellow spots on the forewings. Wingspan ranges from 32 mm (male) to 35 mm (female) (Braby, 2000).

There are two other subspecies of *Antipodia chaostola* which occur on mainland Australia (*A. c. chaostola* and *A. c. chares*). *Antipodia chaostola chaostola* is restricted to the Blue Mountains in New South Wales, where it frequents the sandstone escarpment at altitudes between 400 and 100 m, and *A. c. chares* is known from a few areas in southern Victoria (Braby, 2000).

**Conservation Status**

The Tasmanian Chaostola Skipper is listed as **endangered**. This subspecies is eligible for listing as endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) as its geographic distribution is restricted, and precarious for its survival given the nature of ongoing threats (TSSC, 2009).

The Tasmanian Chaostola Skipper is also listed as endangered under the *Tasmanian Threatened Species Protection Act 1995*.

**Distribution and Habitat**

The Tasmanian Chaostola Skipper is endemic to Tasmania. It is known from five “colonies” (locations) in the east and south-east of the State in mainly near-coastal lowlands (TSS, 2008). These colonies are discrete and well defined in extent (Bell, pers. comm., 2007). There are also a number of sighting type records (e.g. as indicated in the Natural Values Atlas (DPIW, 2007)), mostly historical, and these records possibly only represent observations of flying adults, as opposed to colonies which comprise larvae. The subspecies’ extent of occurrence is estimated to be 1100 km<sup>2</sup> (DPIPWE, 2009).

The population size of the subspecies is not conclusively known. While the Tasmanian Chaostola Skipper is considered to be very localised and uncommon (McQuillan, 1994), there are no estimates of the total number of mature individuals, nor of the size of individual populations (TSS, 2008).

The Tasmanian Chaostola Skipper has been found in dry lowland vegetation communities supporting the food plants *Gahnia radula* (Thatch Sawsedge) and *G. microstachya* (Slender Sawsedge). These communities occur on relatively infertile substrates derived from sandstones, mudstones, siltstones, granites or windblown sands (TSS, 2008).

The subspecies occurs within the South and North Natural Resource Management regions in Tasmania. This subspecies is not known to overlap with any EPBC Act-listed threatened ecological community.

### **Threats**

The threats to the subspecies include land clearance and habitat degradation from urbanisation and agricultural development, and inappropriate fire regimes (TSS, 2008; DPIPWE, 2009).

### **Research Priorities**

Research priorities that would inform future regional and local priority actions include:

- Design and implement a monitoring program for this subspecies or, if appropriate, support and enhance existing programs.
- Develop a standardised survey technique for assessing the likely presence of this subspecies at sites supporting the food plants *G. radula* and *G. microstachya*.
- More precisely assess population size, geographic distribution, ecological requirements, and the relevant impacts of threatening processes.
- Undertake survey work in suitable habitat and potential habitat to locate any additional populations.
- Undertake research to understand the role of fire in the ecology of the subspecies (TSS, 2008).
- Determine dispersal range/connectivity of 'populations' using population genetic or other methods.

### **Priority Actions**

The following priority recovery and threat abatement actions can be done to support the recovery of the Tasmanian Chaostola Skipper.

#### **Habitat Loss, Disturbance and Modification**

- Monitor known populations to identify key threats.
- Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary.
- Confirm known sites of high conservation priority.
- Ensure there is no disturbance in areas where the Tasmanian Chaostola Skipper occurs, excluding necessary actions to manage the conservation of the subspecies.
- Investigate formal conservation arrangements, management agreements and covenants on private land, and for crown and private land investigate inclusion in reserve tenure if possible.
- Manage any other known, potential or emerging threats.

#### **Fire**

- Develop and implement a suitable fire management strategy for the habitat of the Tasmanian Chaostola Skipper.
- Where appropriate provide maps of known occurrences to local and state Rural Fire Services and seek inclusion of mitigative measures in bush fire risk management plan(s), risk register and/or operation maps.

#### **Conservation Information**

- Raise awareness of the Tasmanian Chaostola Skipper within the local community through site visits, signage, and posters/information brochures to be distributed to local naturalist and tourism groups, relevant authorities and volunteer organisations.

- Frequently engage with private landholders and land managers responsible for the land on which populations occur and encourage these key stakeholders to contribute to the implementation of conservation management actions.

This list does not necessarily encompass all actions that may be of benefit to the Tasmanian Chaostola Skipper, but highlights those that are considered to be of highest priority at the time of preparing the Conservation Advice.

### **Existing Plans/Management Prescriptions that are Relevant to the Species**

Greater Freycinet Region Threatened Species Draft Recovery Plan: 2008–2012 (TSS, 2008).

This prescription was current at the time of publishing; please refer to the relevant agency's website for any updated versions.

### **Information Sources:**

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- Couchman LE (1946). Notes on Lepidoptera – Rhopalocera of Tasmania. *Papers and Proceedings of the Royal Society of Tasmania*. 1945: 49–53.
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- Neyland M and Bell P (2000). Ecology and conservation of the chaostola skipper butterfly (*Antipodia chaostola*) in Tasmania. *The Tasmanian Naturalist* 122: 47–54.
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- TSSC (Threatened Species Scientific Committee) (2009). *Listing advice for Antipodia chaostola leucophaea*.