

# Threatened Species of the Northern Territory

## DODD'S AZURE

### *Ogyris iphis doddi*

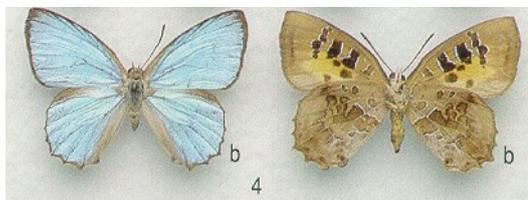
#### Conservation status

Australia: Not listed

Northern Territory: Endangered

(Reproduced from Braby (2000) with permission of CSIRO Publishing)

Dodd's Azure : male upperside left, female underside right.



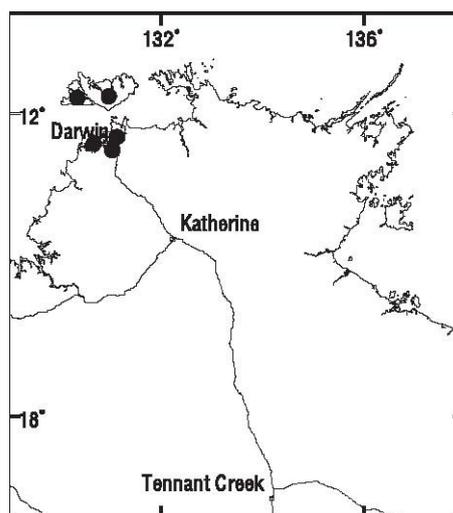
#### Description

Dodd's Azure is a medium-sized butterfly, with a wingspan of about 32 mm. The upperside is shining, iridescent pale blue. The underside is pale brown, with two or three broad brown-black bars edged with iridescent blue on the forewing.

#### Distribution

Dodd's Azure is apparently restricted to the Top End of the NT. It is known only from two sites: Darwin (Waterhouse and Lyell 1914; Dodd 1935) and Melville Island (Braby 2000). It was first discovered at Darwin in 1908-09 by F.P. Dodd and his son Walter but since that time it has not been positively recorded, although an adult resembling this species was observed hilltopping at Bens Hill Darwin in March 1992 (Meyer *et al.* 2006). Only a single specimen is known from Melville Island; it was collected from Pularumpi at light on 30 June 1986 by P. Horner (Braby 2000; Meyer *et al.* 2006). Sands and New (2002) suggested the species may occur in the Mitchell Plateau of the Kimberley, WA, based on an unconfirmed sighting.

*Conservation reserves where reported:*  
None.



Known locations of *Ogyris iphis doddi*

• = post 1970

#### Ecology

The general ecology of this species is well known for the nominate subspecies *O. i. iphis* from Queensland, but little has been recorded for the NT subspecies.

Adults of Dodd's Azure have been recorded in February, June, September and November (Waterhouse and Lyell 1914; Braby 2000; Meyer *et al.* 2006). Dodd (1935) indicated that the larvae were feeding on mistletoe and that they were attended by ants. Specimens lodged in the Australian Museum Sydney (AMS), and the Australian National Insect Collection, Canberra (ANIC), clearly indicate

that Dodds' material from Darwin comprised reared specimens.

In northeastern Queensland, the larvae of the nominate subspecies feed on several species of *Amyema* and *Dendrophthoe* (Loranthaceae), and are always attended by ants, *Froggattella kirbii* (Braby 2000). The larvae shelter during the day in hollows or cracks in the haustorium of the mistletoe where the attendant ants have established a nest, and pupate in similar situations. The adults fly rapidly among the tree tops, but are rarely observed. There are at least two generations annually in Queensland, where it occurs in dry eucalypt woodland and open forest, usually on sandy soils derived from sandstone or granite (Braby 2000). The species is highly localised, but it can be seasonally abundant in places where the food plants and attendant ant occur together.

### Conservation assessment

Fewer than 10 specimens of Dodd's Azure are known to have been collected; four are in AMS, three in Museum Victoria Melbourne (NMV), one in the ANIC, and one in the NT Museum and Art Gallery. Eight of the specimens were reared by the Dodds. However, it is not clear if lack of material and apparent rarity is due to insufficient survey effort or that the subspecies is in decline. On the whole, adults of this species are rarely collected because they are relatively cryptic and difficult to sample due to their extreme localization and arboreal specialization on mistletoe food plants, which frequently grow in the canopy of eucalypts. Most collectors obtain material by rearing the immature stages. However, Meyer *et al.* (2006) noted that, despite extensive searching by several specialists in the Darwin region, they did not locate breeding colonies of *O. i. doddi*.

Conservation categorisation is therefore difficult as there is a lack of detailed

information on geographic distribution and population trends. However, one threatening process has been identified that may have led to local extinction, at least in the Darwin region. Furthermore, there are currently no known extant populations.

Accordingly, the species qualifies as Endangered (under criteria B1ab(i,ii,iii,iv)+2ab(i,ii,iii,iv)) based on:

- extent of occurrence <5000 km<sup>2</sup>;
- area of occupancy <500 km<sup>2</sup>;
- known to exist at <5 locations; and
- inferred or projected decline.

### Threatening processes

There is no evidence that any external factors have caused a decline in numbers or distribution of Dodd's Azure. However, some factors may threaten its viability.

#### *Altered fire regime*

Darwin, and more generally throughout the Top End, has seen an increase in the frequency and intensity of burning brought about by urban and rural expansion and the uncontrolled spread of introduced perennial pasture grasses. As a result of this increased fire intensity there is anecdotal evidence to suggest that mistletoes, which readily succumb to fire, comprise a declining resource in tropical savanna woodland and other habitats on which *Ogyris iphis* and related species depend (Braby 2000; Sands and New 2002).

#### *Land clearing*

Within its limited range, much of its preferred eucalypt forest habitat is subject to escalating levels of land clearing, for horticulture, forestry plantation (on Tiwi Islands) or residential areas.

## Conservation objectives and management

There is no existing management program for this species in the Northern Territory.

Research priorities are to:

- (1) undertake surveys in the Tiwi Islands and the Darwin region to establish if the species is still extant, and elsewhere in the Top End to locate additional populations;
- (2) investigate the basic biology and ecology of the subspecies to determine larval food plants and habitat requirements; breeding sites can then be identified and protected;
- (3) establish a monitoring program in order to detect possible changes in range or abundance, and identify and measure impacts of threatening processes.

Management priorities are to:

- (1) encourage appropriate fire management;
- (2) control the spread of exotic grasses;
- (3) maintain adequate areas of its preferred habitat within its limited distribution.

## Compiled by

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[December 2006]

## References

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- Dodd, W.D. (1935). Meanderings of a naturalist. The North Queensland Register.
- Meyer, C.E., Weir, R.P., and Wilson, D.N. (2006). Butterfly (Lepidoptera) records from the Darwin region, Northern Territory. *Australian Entomologist* **33**, 9-22.
- Sands, D.P.A., and New, T.R. (2002). *The Action Plan for Australian Butterflies*. (Environment Australia, Canberra.)
- Waterhouse, G.A., and Lyell, G. (1914). *The Butterflies of Australia. A monograph of the Australian Rhopalocera*. (Angus and Robertson, Sydney.)