Brier Shark, Deania calcea

Report Card assessment	**Sustainable**		
IUCN Red List Australian Assessment	Refer to Global Assessment	IUCN Red List Global Assessment	Least Concern
Assessors	Stevens, J.		
Report Card Remarks	Abundant in Australia where management measures protect deepwater dogfishes		

Summary

The Brier Shark is one of the more abundant mid-slope species of deepwater dogfish. It is widespread but patchily distributed across the eastern and western Pacific, and eastern Atlantic. The species is mainly a bycatch species taken by trawl and hook, although with some limited targeting, for its flesh and liver oil. In Australia, it is likely taken the South East Trawl Fishery, though there are no species-specific trends in abundance or biomass available. The species has low productivity, however the species is currently still abundant in Australia. Following documented declines in a number of other deepwater dogfish species in southeast Australia, management measures were implemented to promote recovery that included catch limits of deepwater dogfishes and ban of commercial fishing below 700 m. Therefore, the species is assessed as Least Concern (IUCN) and in Australia, Sustainable (SAFS).

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Distribution

The Brier Shark is found in the eastern Atlantic (Iceland to Southern Africa), eastern Pacific (Chile and Peru) and western Pacific (Japan, Australia and New Zealand). In Australia, it occurs between Coffs Harbour (New South Wales) and Green Head (Western Australia) (Long 1997, Last and Stevens 2009).

Stock structure and status

There is currently no information on population size, structure, or trend for the species in Australian waters.

Fisheries

The Brier Shark is taken as bycatch in the deepwater trawl fisheries of southern Australia. It's occurrence below the maximum limit of trawling (700 m) means that it has a significant refuge from fishing.

Habitat and biology

The Brier Shark occurs on the outer continental slopes at depths of 60 to 1,490m, most commonly from 750 to 800 m (Ebert and Stehmann 2013). Maximum size is 122 cm total length (TL) and estimated maximum age is 35 years (Clarke et al. 2002). Males mature at 81-94 cm TL and 17 years and females at 99-106 cm TL and 25 years (Ebert and Stehmann 2013). It may occur in large groups and appears to segregate by size, sex and maturity status (Moura et al. 2014). Their diet suggests that they feed at some height above the bottom (Daley et al. 2002), which may reduce their susceptibility to demersal trawl gear. Gestation may take up to two years and litters range from one to 17 pups.

Longevity and maximum size	Longevity: estimated 35 years Max size: 122 cm TL
Age and/or size at maturity (50%)	Males: 17 years, 81-94 cm TL Females: 25 years, 99-106 cm TL

Link to IUCN Page: http://www.iucnredlist.org/details/41798/0

Link to page at Shark References: http://www.shark-references.com/species/view/Deania-calcea

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