Approved Conservation Advice for Rostratula australis (Australian painted snipe)

(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

Rostratula australis (Australian painted snipe), Family Rostratulidae, is a stocky wading bird approximately 240–300 mm in length, with a wingspan of 500–540 mm and weighing 125–130 g (Birds Australia, 2012). The adult female is more colourful and larger than the male. It has a chocolate-brown head with chestnut patch in the nape, a comma-shaped white marking around the eye and metallic green back and wings, densely barred olive and black (Rogers pers. comm., 2012). A diagnostic white 'harness marking' runs from the mantle onto the breast (Rogers pers. comm., 2012). It has a brown eye, white belly, bluish-green legs and long pink-orange bill darkening towards the tip (Reader's Digest, 1997). The male is smaller than the female and has a duller head pattern (Rogers pers. comm., 2012). It has a mottled grey-brown head and neck, with buff stripe down the centre of the crown and through the eyes. Wings and back are barred black, buff and white, and the breast has a broad black band (Reader's Digest, 1997). There is no seasonal variation in the plumage of the Australian painted snipe. The juvenile is separable though very similar to the adult male (Marchant and Higgins, 2003).

Conservation Status

The Australian painted snipe is listed as **endangered** under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This species is eligible for listing as endangered as it is inferred to have undergone a severe decline in the number of mature individuals in excess of 50% over the last three generations (~26 years) associated with wetland loss and degradation (TSSC, 2012).

The Australian painted snipe is also listed as a marine species (as *Rostratula benghalensis*) and a migratory species (under the China-Australia Migratory Bird Agreement as *Rostratula benghalensis*) under the EPBC Act.

The species is listed as threatened under various state and territory lists and legislation:

State	List/legislation	Listing status	Listed name
Queensland	Nature Conservation (Wildlife) Regulations 2006	vulnerable	Rostratula australis
New South Wales	Threatened Species Conservation Act 1995	endangered	Rostratula benghalensis australis
Victoria	Flora and Fauna Guarantee Act 1988 – Threatened List – October 2010	threatened	Rostratula australis
South Australia	National Parks and Wildlife Act 1972	vulnerable	Rostratula benghalensis
Western Australia	Wildlife Conservation (Specially Protected Fauna) Notice 2010(2)	rare or likely to become extinct	Rostratula benghalensis australis
	Threatened and Priority Fauna ranking	vulnerable	
Northern Territory	Territory Parks and Wildlife Conservation Act 2000	vulnerable	Rostratula benghalensis australis

Cultural Significance

The Australian painted snipe is not known to be culturally significant.

Distribution and Habitat

The Australian painted snipe occurs in shallow freshwater (occasionally brackish) wetlands, both ephemeral and permanent, such as lakes, swamps, claypans, inundated or waterlogged grassland/saltmarsh, dams, rice crops, sewage farms and bore drains, generally with a good cover of grasses, rushes and reeds, low scrub, *Muehlenbeckia* spp. (lignum), open timber or samphire (Reader's Digest, 1997; Marchant and Higgins, 2003). It has been recorded at wetlands in all states and territories (Barrett et al, 2003; Blakers et al., 1984) and is most common in eastern Australia.

Important areas for this species in the past have included the Murray-Darling Basin (particularly the Riverina of Victoria and New South Wales), Queensland Channel Country, Fitzroy Basin of Central Queensland, south-eastern South Australia and adjacent parts of Victoria (Rogers et al., 2005). Records published over the past twenty years provide evidence for Australian painted snipe occurring more widely and frequently in the remote arid and tropical regions of Australia than was previously thought (Hassell and Rogers, 2002; Jaensch 2003a, 2003b; Jaensch et al., 2004; Black et al., 2010).

The Australian painted snipe is inferred to have undergone a severe decline in the number of mature individuals since the 1950s (Garnett and Crowley, 2000; Lane and Rogers, 2000; Rogers et al., 2005; Garnett et al., 2011; BirdLife Australia, 2012) and specifically over the last three generations (~26 years) due to the loss and degradation of its wetland habitat (Rogers et al., 2005). There has been an increase in the number of sightings in 2010–11 associated with increased rainfall; however, this must be considered within the context of overall, long-term population decline (Jaensch pers. comm., 2012; BirdLife Australia, pers. comm., 2012; Rogers pers. comm., 2012). It is estimated that the species' current population is 2500 mature individuals (Garnett et al., 2011; BirdLife Australia, pers. comm., 2012).

The species is widespread and is not considered to have a limited geographic distribution. Its current extent of occurrence estimated to be 7,100,000 km² and stable (Garnett et al., 2011). The species' area of occupancy was estimated by Garnett et al. (2011) to be 2000 km² and decreasing; however, given the exceptional rainfall of 2010-11 this figure is currently assumed to be higher. The Australian painted snipe occurs within many Natural Resource Management (NRM) Regions and Interim Biogeographic Regionalisation for Australia (IBRA) Bioregions across Australia.

The distribution of this species overlaps with a number of EPBC Act-listed threatened ecological communities, including Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains and Upland Wetlands of the New England Tablelands and the Monaro Plateau.

The Department of Sustainability, Environment, Water, Population and Communities has prepared survey guidelines for Australia's threatened birds (Commonwealth of Australia, 2010). These survey guidelines are intended to provide guidance for stakeholders on the effort and methods considered appropriate when conducting a presence/absence survey for listed threatened species.

Threats

The main identified threat to the Australian painted snipe is the loss and degradation of wetlands, through drainage and the diversion of water for agriculture and reservoirs (Lane and Rogers 2000; Garnett et al., 2011). Rogers et al. (2005) state that the loss of breeding habitat in the Murray-Darling Basin has occurred through: (1) the reduced frequency of

flooding in previously suitable habitat, exacerbated by a loss of fresh water to irrigation and other diversions; (2) water levels being stabilised in remaining wetlands so that water becomes too deep, or continuous reed beds develop; and (3) changes to vegetation through increased cropping, and possibly through altered fire regimes at some sites. These hydrological changes have occurred in parallel with an extended period of drought in Australia (BoM, 2010) and these conditions have intensified the impacts of wetland degradation and water diversion in the Murray-Darling Basin.

Grazing and the associated trampling of wetland vegetation/nests, nutrient enrichment and disturbance to substrate by livestock may threaten the Australian painted snipe in certain regions, particularly where grazing is concentrated around wetlands during dry seasons (Johnstone and Storr, 1998; Rogers et al., 2005; Jaensch pers. comm., 2012).

Reduced rainfall and runoff in the Murray-Darling Basin associated with climate change (CSIRO 2008, 2011) may threaten the Australian painted snipe in the future. The species is strongly affected by seasonal conditions and appears to depend on the Murray-Darling Basin for breeding; as such, these conditions could have a significant impact on the species if combined with other known and potential threats.

Predation by feral animals (e.g. nest predation by foxes (*Vulpes vulpes*) or cats (*Felis catus*)) may be a threat to the Australian painted snipe, however there is no evidence for this. Additional potential threats include coastal port and infrastructure development, shale oil mining near autumn-winter sites for this species on the central Queensland coast (Houston and Black, pers. comm., 2012) and the replacement of native wetland vegetation by invasive weeds (Rogers et al., 2005). The impacts of fire on the Australian painted snipe are unknown, but may have either a positive or negative influence (Rogers et al., 2005).

Research Priorities

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

- Support and enhance existing programs for the Australian painted snipe that are managed by BirdLife Australia.
- Continue to monitor the species to more precisely assess population size, distribution and the relative impacts of threatening processes.
- Identify and describe the ecological and hydrological character of sites that are suitable for the Australian painted snipe, particularly those known to be used by the species for breeding.
- Investigate potential food resources for the species and monitor changes to the abundance and diversity of these resources (e.g. invertebrates).
- Directly monitor the breeding and non-breeding behaviour of the Australian painted snipe with the use of radio transmitters and/or tagging methods.

Regional Priority Actions

The following regional priority recovery and threat abatement actions can be done to support the recovery of the Australian painted snipe.

Habitat Loss, Disturbance and Modification

- Develop management guidelines for breeding and non-breeding habitat.
- Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary.
- Ensure there is no disturbance in areas where the species is known to breed, excluding necessary actions to manage the conservation of the species.
- Control access routes to suitably constrain public access to existing and future breeding sites on public land.
- Suitably control and manage access on private land and other land tenure.

- Minimise adverse impacts from land use at known sites.
- Manage any changes to hydrology that may result in changes to water table levels, run-off, salinity, algal blooms, sedimentation or pollution.
- Manage any disruptions to water flows.
- Investigate formal conservation arrangements, management agreements and covenants on private land, and for crown and private land investigate/secure inclusion in reserve tenure if possible.
- Manage any other known, potential or emerging threats including inappropriate fire regimes and coastal port/infrastructure development.

Invasive Weeds

- Implement the Parkinsonia (*Parkinsonia aculeata*) Strategic Plan (Commonwealth of Australia, 2000) for the control of this species within the range of the Australian painted snipe.
- Identify and remove weeds in wetland areas that could become a threat to the Australian painted snipe, using appropriate methods.
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on the Australian painted snipe.

Trampling, Browsing or Grazing

- Develop and implement a stock management plan for roadside verges and travelling stock routes which include swamps, marshes or wetlands.
- If livestock grazing occurs in known Australian painted snips habitats, ensure land owners/managers use an appropriate management regime and density that does not detrimentally affect Australian painted snipe nesting.
- If appropriate, manage total grazing pressure at important breeding sites through exclusion fencing or other barriers.

Animal Predation or Competition

- Implement the national threat abatement plans for the European red fox (DEWHA, 2008a) and feral cats (DEWHA, 2008b) to control the adverse impacts of foxes (Vulpes vulpes) and cats (Felis catus) in the species' range.
- Continue baiting to control population numbers of feral animals.

Fire

 Develop and implement a suitable fire management strategy for the habitat of the Australian painted snipe.

Conservation Information

- Raise awareness of the Australian painted snipe within the local community and the importance of reporting observations to BirdLife Australia, using fact sheets and/or brochures.
- Advertise and encourage use of Australian painted snipe survey techniques and survey forms (Birds Australia, 2012).
- Organise field days with industry and interest groups to raise awareness and share information on the species. These groups may include natural resource management groups, catchment management authorities, Indigenous groups, conservation organisations, local and state governments, and private landholders.
- 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.
- Raise awareness of banded individuals (see BirdLife Australia, 2012) to increase the likelihood of re-sighting and reporting.
- Facilitate the exchange of information between interested parties, including sightings, research and management approaches.

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

Existing Plans/Management Prescriptions that are Relevant to the Species

- Australian Painted Snipe Project (BirdLife Australia, 2012).
- Draft National Recovery Plan for the Australian Painted Snipe Rostratula australis 2005-2010 (Compiled by the Victorian Department of Sustainability and Environment for the Australian Government Department of the Environment and Heritage, June 2005).
- Threat abatement plan for predation by the European red fox (Commonwealth of Australia, 2008a).
- Threat abatement plan for predation by feral cats (Commonwealth of Australia, 2008b).
- Australian painted snipe survey form, survey instructions, brochure and newsletters (Birds Australia, 2012).

These prescriptions were current at the time of publishing; please refer to the relevant agency's website for any updated versions.

References cited in the advice

Barrett G, Silcocks A, Barry S, Cunningham R and Poulter R (2003). The new atlas of Australian birds. Royal Australasian Ornithologists Union, Hawthorn East, Victoria.

BirdLife Australia (2012). Painted Snippets: the newsletter of the Australian painted snipe project. Volume 4, May 2012.

Viewed: 11 May 2012 Available on the Internet at:

http://www.birdlife.org.au/documents/APS-snippetsMay12.pdf

BirdLife Australia (2012). Personal communication by email, 7 February 2012. BirdLife Australia acknowledges the input and information provided by the following individuals: C. Tzaros, A. Silcocks, D. Ingwersen, J. Thomas, C. Purnell, D. Rogers, A. Geering and D. Parker.

Birds Australia (2012). Australian painted snipe Rostratula australis.

Viewed: 11 May 2012 Available on the Internet at:

http://www.birdsaustralia.com.au/our-projects/australian-painted-snipe.html

Black R, Houston W and Jaensch R (2010). Evidence of regular seasonal migration by Australian painted snipe *Rostratula australis* to the Queensland tropics in autumn and winter. Stilt 58:1–9.

Blakers M, Davies S J J F and Reilly PN (1984). The atlas of Australian birds. Royal Australasian Ornithologists Union. Melbourne University Press, Victoria.

Bureau of Meteorology (BoM) (2010). Special climate statement 22: Australia's wettest September on record but it is not enough to clear long-term rainfall deficits. Issued 1 October 2010; updated 5 October 2010. National Climate Centre, Bureau of Meteorology.

Viewed: 11 May 2012 Available on the Internet at:

http://www.bom.gov.au/climate/current/statements/scs22.pdf

Commonwealth of Australia (2000). Weeds of National Significance: Parkinsonia (*Parkinsonia aculeata*) Strategic Plan. Commonwealth of Australia and the National Weeds Strategy Executive Committee, 2000.

Viewed: 27 July 2012

Available on the Internet at: http://www.weeds.org.au/docs/parstrat.pdf

Commonwealth of Australia (2008a). Threat Abatement Plan for predation by the European red fox. Prepared by the Department of Environment, Water, Heritage and the Arts in 2008.

Viewed: 27 July 2012 Available on the Internet at:

http://www.environment.gov.au/biodiversity/threatened/publications/tap/foxes08.html

Commonwealth of Australia (2008b). Threat Abatement Plan for predation by feral cats. Prepared by the Department of Environment, Water, Heritage and the Arts in 2008.

Viewed: 17 July 2012

Available on the Internet at:

http://www.environment.gov.au/biodiversity/threatened/publications/tap/pubs/tap-cat-report.pdf

Commonwealth of Australia (2010). Survey Guidelines for Australia's Threatened Birds. Guidelines for detecting birds listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999*. Prepared by the Department of Environment, Water, Heritage and the Arts in 2010.

Viewed: 27 July 2012 Available on the Internet at:

http://www.environment.gov.au/epbc/publications/threatened-birds.html

Commonwealth Scientific and Industrial Research Organisation (2008). Rainfall-runoff modelling across the Murray-Darling Basin. A report to the Australian Government from the CSIRO Murray-Darling Basin Sustainable Yields Project, June 2008.

Viewed: 11 May 2012

Available on the Internet at:

http://www.clw.csiro.au/publications/waterforahealthycountry/mdbsy/technical/C-Rainfall-runoffModelling.pdf

Commonwealth Scientific and Industrial Research Organisation (2011). Planning for climate change in the Murray-Darling Basin. 16 March 2006; updated 14 October 2011.

Viewed: 11 May 2012

Available on the Internet at:

http://www.csiro.au/Organisation-Structure/Flagships/Water-for-a-Healthy-Country-Flagship/Murray-Darling-climate-change.aspx

- Garnett ST and Crowley GM (2000). The action plan for Australian birds 2000. Environment Australia, Canberra.
- Garnett ST, Szabo J and Dutson G (2011). The action plan for Australian birds 2010. CSIRO Publishing, Victoria.
- Hassell CJ and Rogers DI (2002). Painted snipe nesting at Taylor's Lagoon, near Broome, north-western Australia. The Stilt 41: 14–21.
- Houston W and Black R (2012). Personal communication by email, 7 February 2012. Centre for Environmental Management, Central Queensland University.
- Jaensch R (2003a). Breeding by Australian painted snipe in the Diamantina Channel Country, south-western Queensland. The Stilt 43: 20–22.

- Jaensch R (2003b). Recent records and breeding of painted snipe *Rostratula benghalensis* in the Mitchell Grass Downs and Sturt Plateau, Northern Territory. NT Naturalist 17: 31–37.
- Jaensch R (2012). Personal communication by email, 23 January 2012. Professional Associate, Wetlands international Oceania.
- Jaensch R, McCabe J, Wahl J and Houston W (2004). Breeding by Australian painted snipe on the Torilla Plain, Brigalow Belt coast, Queensland. The Stilt 45: 40–43.
- Johnstone RE and Storr GM (1998). Handbook of Western Australia, Volume 1. Non-passerines (Emu to Dollarbird). Western Australian Museum, Perth.
- Lane BA and Rogers D (2000). The Australian painted snipe *Rostratula* (benghalensis) australis: An endangered species? Stilt 36: 26–34.
- Marchant S and Higgins PJ (eds) (1993). Handbook of Australian, New Zealand and Antarctic Birds. Volume 2: raptors and lapwings. Oxford University Press Australia.
- Readers Digest (1997). Complete Book of Australian Birds (second edition). Reader's Digest Australia Pty Ltd, Sydney.
- Rogers D (2012). Personal communication by email, 28 February 2012. Arthur Rylah Institute for Environmental Research.
- Rogers D, Hnace I, Paton S, Tzaros C, Griffioen P, Herring M, Jaensch R, Oring L, Silcocks A and Weston M (2005). The breeding bottleneck: Breeding habitat and population decline in the Australian painted snipe. Status and Conservation of Shorebirds in the East Asian-Australasian Flyway. Proceedings of the Australasian Shorebirds Conference, 13–15 December 2003, Canberra, Australia.
- Threatened Species Scientific Committee (TSSC) (2012). Listing advice for *Rostratula australis* (Australian painted snipe).