

[1] "*Gallinago hardwickii* — Latham's Snipe, Japanese Snipe
Glossary SPRAT Profile
For information to assist regulatory considerations, refer to Policy Statements and Guidelines, the Conservation Advice, the Listing Advice and/or the Recovery Plan. EPBC Legal Status and Documents Top EPBC Act Listing Status
Listed marine as *Gallinago hardwickii*
Listed migratory - EPBC Act as *Gallinago hardwickii*, Bonn as *Gallinago hardwickii*, JAMBA as *Gallinago hardwickii*, ROKAMBA as *Gallinago hardwickii*
Under threatened listing assessment, due 30-Oct-2022.
Approved Conservation Advice
There is no approved Conservation Advice for this species
Listing Advice
There is no Listing Advice for this species
Adopted/Made Recovery Plans
There is no adopted or made Recovery Plan for this species
Adopted/Made Threat Abatement Plans
Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008). Threat abatement plan for predation by the European red fox. DEWHA, Canberra. Available from:
<http://www.environment.gov.au/biodiversity/threatened/publications/tap/predation-european-red-fox>. In effect under the EPBC Act from 01-Oct-2008.
Wildlife Conservation Plans
Commonwealth of Australia (2015). Wildlife Conservation Plan for Migratory Shorebirds. Canberra, ACT: Department of the Environment. Available from: <http://www.environment.gov.au/biodiversity/publications/wildlife-conservation-plan-migratory-shorebirds-2016>. In effect under the EPBC Act from 15-Jan-2016.
Other Commonwealth Documents
Other EPBC Act Plans
Industry Guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species (Department of the Environment, 2015) [Admin Guideline].
Policy Statements and Guidelines
National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds (Department of the Environment and Energy, 2020) [Admin Guideline].
Information Sheets
Migratory Shorebirds of the East Asian - Australasian Flyway: Population estimates and internationally important sites (Bamford M., D. Watkins, W. Bancroft, G. Tischler & J. Wahl, 2008) [Information Sheet].
Revision of the East Asian-Australasian Flyway Population Estimates for 37 listed Migratory Shorebird Species (Hansen, B.D., R.A. Fuller, D. Watkins, D.I. Rogers, R.S. Clemens, M. Newman, E.J. Woehler & D.R. Weller, 2016) In effect under the EPBC Act from 29-May-2017. [Information Sheet].
Federal Register of Legislative Instruments
Marine: Declaration under section 248 of the Environment Protection and Biodiversity Conservation Act 1999 - List of Marine Species (Commonwealth of Australia, 2000c) [Legislative Instrument] as *Gallinago hardwickii* Migratory: List of Migratory Species (13/07/2000) (Commonwealth of Australia, 2000b) [Legislative Instrument] as *Gallinago hardwickii* Wildlife Conservation Plan: Wildlife Conservation Plan for Migratory Shorebirds (Commonwealth of Australia, 2006r) [Legislative Instrument] as *Gallinago hardwickii* Wildlife Conservation Plan: Environment Protection and Biodiversity Conservation Act 1999 - Section 285 - Instrument revoking and making a wildlife conservation plan (Commonwealth of Australia, 2016) [Legislative Instrument] as *Gallinago hardwickii*
State Government Documents and Websites
VIC: Migratory species prescription - Melbourne Strategic Assessment (Victoria Department of Sustainability and Environment (Vic. DSE), 2010h) [Management Plan].
State Listing Status
SA: Listed as Rare
(National Parks and Wildlife Act 1972 (South Australia): Rare species: January 2020 list)
as *Gallinago hardwickii*
Non-statutory Listing Status
IUCN: Listed as Least Concern
(Global Status: IUCN Red List of Threatened Species: 2020.2 list)
VIC: Listed as Near Threatened
(Advisory List of Threatened Vertebrate Fauna in Victoria: 2013 list)
NGO: Listed as Least Concern
(The Action Plan for Australian Birds 2010 - non-threatened)
Naming
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Scientific name
Gallinago hardwickii [863]
Family

Scolopacidae:Charadriiformes:Aves:Chordata:Animalia

(Gray,1831)

Infraspecies author

Reference

Other names

Capella hardwickii [66542]

Distribution Map

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Distribution map

The distribution shown is generalised from the Departments Species of National Environmental Significance dataset. This is an indicative distribution map of the present distribution of the species based on best available knowledge. Some species information is withheld in line with sensitive species polices. See map caveat for more information.

Illustrations

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Illustrations

Google Images

Other Links, Including Superseded Commonwealth Documents

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Australian Government Department of the Environment and Heritage (AGDEH) (2006f). Wildlife Conservation Plan for Migratory Shorebirds. Canberra, ACT: Department of the Environment and Heritage. Available from: <http://www.environment.gov.au/biodiversity/migratory/publications/shorebird-plan.html>. In effect under the EPBC Act from 25-Feb-2006. Ceased to be in effect under the EPBC Act from 15-Jan-2016.

Commonwealth of Australia (2000b). List of Migratory Species (13/07/2000). F2007B00750. Canberra: Federal Register of Legislative Instruments. Available from: <http://www.comlaw.gov.au/Details/F2007B00750>.

Commonwealth of Australia (2000c). Declaration under section 248 of the Environment Protection and Biodiversity Conservation Act 1999 - List of Marine Species. F2008B00465. Canberra: Federal Register of Legislative Instruments. Available from: <http://www.comlaw.gov.au/Details/F2008B00465>.

Commonwealth of Australia (2007h). Environment Protection and Biodiversity Conservation Act 1999 - Listed Migratory Species - Approval of an International Agreement. F2007L02641. Canberra: Federal Register of Legislative Instruments. Available from: <http://www.comlaw.gov.au/Details/F2007L02641>.

Department of the Environment, Water, Heritage and the Arts (DEWHA) (2009aj). Draft Significant impact guidelines for 36 migratory shorebirds Draft EPBC Act Policy Statement 3.21. Canberra, ACT: Commonwealth of Australia. Available from: <http://www.environment.gov.au/epbc/publications/migratory-shorebirds.html>.

Department of the Environment, Water, Heritage and the Arts (DEWHA) (2009bc). Draft background paper to EPBC Act policy statement 3.21. Canberra, DEWHA. Available from: <http://www.environment.gov.au/epbc/publications/migratory-shorebirds.html>.

Newsletters

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EPBC Act email updates can be received via the Communities for Communities newsletter and the EPBC Act newsletter.

Caveat

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This database is designed to provide statutory, biological and ecological information on species and ecological communities, migratory species, marine species, and species and species products subject to international trade and commercial use protected under the Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act). It has been compiled from a range of sources including listing advice, recovery plans, published literature and individual experts. While reasonable efforts have been made to ensure the accuracy of the information, no guarantee is given, nor responsibility taken, by the Commonwealth for its accuracy, currency or completeness. The Commonwealth does not accept any responsibility for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the information contained in this database. The information contained in this database does not necessarily represent the views of the Commonwealth. This database is not intended to be a complete source of information on the matters it deals with. Individuals and organisations should consider all the available information, including that available from other sources, in deciding whether there is a need to make a referral or apply for a permit or exemption under the EPBC Act.

Citation: Department of the Environment (2022). Gallinago hardwickii in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: <https://www.environment.gov.au/sprat>. Accessed Tue, 18 Jan 2022 21:04:22 +1100.

Where available the sections below provide a biological profile for the species. Biological profiles vary in age and content across species, some are no longer being updated and are retained as archival content. These profiles are still displayed as they contain valuable information for many species. The Profile Update section below indicates when the biological profile was last updated for some species. For information to assist regulatory considerations, please refer to Conservation Advice, the Recovery Plan, Policy Statements and Guidelines.

Taxonomy

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Scientific name: Gallinago hardwickii

Common name: Latham's Snipe

Other common names: Japanese Snipe, New Holland Snipe, Australian Snipe (Higgins & Davies 1996; Pizzey & Knight 1997; Sibley & Monroe 1990).

Latham's Snipe is a conventionally accepted

species (Christidis & Boles 1994; Peters 1934; Sibley & Monroe 1990).

Description

Latham's Snipe is a medium sized wader, and the largest snipe in Australia, with a length of 29-33 cm, a wingspan of 50-54 cm and a mass of 150-230 g. It has a long straight bill, rather short broad pointed wings, a long tail and short legs (Higgins & Davies 1996). The cryptic plumage is intricately marked with barring and chevrons of buff, black and various shades of brown, with blackish-brown stripes across the crown and cream streaks down the back. The belly and parts of the head are white, and the tail is rufous with a white tip. The eyes are large and blackish-brown in colour (Higgins & Davies 1996; Pizzey & Knight 1997). The colour of the bill varies from pale-brown to olive, becoming blackish at the distal third and olive-yellow at the base. The legs and feet are olive-grey to olive in colour. The sexes are similar in appearance, and there is no seasonal variation in the plumage. Juveniles in fresh plumage differ only slightly from adults, but can be distinguished by slight differences in the patterning on the upperwing. Adults and juveniles are indistinguishable after early November (Higgins & Davies 1996). In non-breeding areas, snipe that are flushed from cover flee with a distinctive and rapid 'zig-zagging' flight (Weston 2006, pers. comm.).

Latham's Snipe usually occurs singly or in small, loose groups of less than a dozen birds (Driscoll 1993; Higgins & Davies 1996; Naarding 1983). It is occasionally observed in larger groups of several dozen birds (Higgins & Davies 1996; Naarding 1983) or more, e.g. migrating flocks may contain up to 200 birds when they arrive in Australia (Frith et al. 1977; Naarding 1981, 1982).

Australian Distribution

Latham's Snipe is a non-breeding visitor to south-eastern Australia, and is a passage migrant through northern Australia (i.e. it travels through northern Australia to reach non-breeding areas located further south) (Higgins & Davies 1996). The species has been recorded along the east coast of Australia from Cape York Peninsula through to south-eastern South Australia (including the Adelaide plains and Mount Lofty Ranges, and the Eyre Peninsula). The range extends inland over the eastern tablelands in south-eastern Queensland (and occasionally from Rockhampton in the north), and to west of the Great Dividing Range in New South Wales (Barrett et al. 2003; Blakers et al. 1984; Frith et al. 1977). The species is widespread in Tasmania (Barrett et al. 2003; Naarding 1983; Thomas 1979) and is found in all regions of Victoria except for the north-west (Barrett et al. 2003; Blakers et al. 1984; Emison et al. 1987). Most birds spend the non-breeding period at sites located south of the Richmond River in New South Wales (Frith et al. 1977).

The species is occasionally recorded at sites located to the west of the core range (e.g. in north-western and south-western Queensland, north-western New South Wales, mid-northern South Australia, the Northern Territory and Western Australia) (Barrett et al. 2003; Blakers et al. 1984; Bywater & McKean 1987; Frith et al. 1977; Hunt 1993). It is also an irregular visitor to Norfolk Island and Lord Howe Island, and possibly to Macquarie Island (records are unconfirmed) (Higgins & Davies 1996).

The extent of occurrence is estimated at 3 000 000 km². This estimate, which is based on published maps, is considered to be of high reliability (Garnett & Crowley 2000).

There are no historical records of any changes in the extent of occurrence, but it is thought to be stable at present (Garnett & Crowley 2000; Higgins & Davies 1996).

It is difficult to predict future trends in the extent of occurrence, but they will likely be determined by the suitability of habitat throughout the range of the snipe. The use (to some extent) of some modified habitats in Australia suggests that the extent of occurrence will probably remain relatively stable (Weston 2006, pers. comm.).

The area of occupancy is estimated at 3000 km². This estimate is based on the number of 1 km² grid squares that the species is thought to occur in at the time when its population is most constrained. However, this estimate is considered to be of low reliability (Garnett & Crowley 2000).

The area of occupancy is presumed to have declined since the arrival of Europeans. No quantitative data are available to illustrate this decrease, but there is evidence of population declines having occurred during the 20th century in New South Wales (Frith et al. 1977), Victoria (Humphreys 1986; Naarding 1983), Tasmania (Legge 1932; Littler 1910) and South Australia (Naarding 1983) and, together with the widespread loss of habitat due to the drainage and clearance of wetlands, and the impact of hunting, it is highly likely that there has been a historical decline in the area of occupancy. This decline is likely to be ongoing (Garnett & Crowley 2000), but may be partially mitigated by the limited use of some modified habitats in Australia (Weston 2006, pers. comm.).

There have been no estimates of the number of locations in which Latham's Snipe occurs in Australia. Estimates of the number of locations are problematic, given that the species is highly mobile, will readily move between locations as conditions become more or less favourable, has a widespread distribution and, in wet years (when potentially many wetland areas are available), can have a widely dispersed population (Naarding 1986).

The distribution of Latham's Snipe is naturally fragmented (although, because of the mobility of the species, this is unlikely to have any affect on survival). The distribution is fragmented because the preferred habitat (i.e. freshwater wetlands) occurs in patches throughout the non-breeding grounds (Weston 2006, pers. comm.).

Global Distribution

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Latham's Snipe breed in Japan and far eastern Russia during the northern hemisphere summer. They migrate south after the breeding season, travelling across Papua New Guinea to winter in eastern Australia (del Hoyo et al. 1996; Higgins & Davies 1996; Naarding 1986; Nechaev 1994). Latham's Snipe have also been recorded as vagrants in New Zealand (Higgins & Davies 1996). The global population of Latham's Snipe is estimated at 25 000 to 100 000 birds (Wetlands International 2002). This estimate is considered to be of low reliability due to the dispersed nature of the snipe population in both breeding and non-breeding areas, and the lack of necessary data on population sizes or densities throughout much of the snipe's global range (Weston 2006, pers. comm.). The global population is believed to be declining (Wetlands International 2002), but population trends have not been quantified (BirdLife International 2005). Because of the large population size and the lack of quantitative data on population trends, the species is classified (at the global level) as being of Least Concern (BirdLife International 2005). The current major threat to Latham's Snipe outside of Australia appears to be the modification and loss of habitat. This has been caused by the drainage, clearance and modification of wetlands for residential, agricultural and industrial development (Frith et al. 1977; Naarding 1981, 1983, 1985; Weston 1998). The species is also potentially threatened by predators such as foxes and mink (Naarding 1985; Weston 1998), and is said to be sensitive to disturbance caused by humans and grazing cattle (Naarding 1983). Hunting was formerly a threat in Japan, where approximately 2000 birds were shot annually (Frith 1970; Naarding 1981). However, hunting has been prohibited in Japan since 1974 (Naarding 1983). The entire global population of 25 000 to 100 000 birds is thought to migrate to Australia (Smith 1990; Watkins 1993; Wetlands International 2002). This is based on the absence of species records from outside of Australia during the non-breeding period (Weston 2006, pers. comm.). Because the entire population migrates, global threats are likely to affect the number of Latham's Snipe arriving in Australia. In addition to overseas and local threats, global warming represents a potential threat that could threaten the species throughout its range in the future (Melville 1997).

Surveys Conducted

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Latham's Snipe has been surveyed reasonably frequently in south-eastern Australia (see Naarding 1981, 1982, 1983, 1984, 1985, 1986). The known distribution of Latham's Snipe is likely to be a reasonably accurate reflection of the actual distribution of the species, given the number and coverage of surveys. However, the population size of Latham's Snipe is much more difficult to estimate as the birds are difficult to detect, thinly dispersed and highly mobile, and readily move between sites as conditions change (Naarding 1983, 1984; Weston 1995). Consequently, estimates of population size are likely to be much less accurate than estimates of the distribution.

Population Information

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The entire global population of Latham's Snipe is thought to migrate to Australia (Smith 1990; Watkins 1993). Therefore, any estimates of the global population size will be equivalent to the Australian population size. The size of the Latham's Snipe population that visits Australia is estimated at 30 000 birds (Hansen et al. 2016). Previous population estimates have ranged from 15 000 breeding birds (Garnett & Crowley 2000) to 37 000 breeding birds (Naarding 1986). The actual population size is difficult to estimate, and is poorly known. In Australia, Latham's Snipe occurs in a single, dispersed non-breeding population (Garnett & Crowley 2000). Although not genuine subpopulations, there have been rough estimates of the numbers of Latham's Snipe that remain over summer in each of the Australian states: it is estimated that 12 000 birds occupy New South Wales (Smith 1990); 10 000 birds or more occupy Victoria; 2000 birds or more occupy Tasmania; and 1200 birds occupy South Australia (Naarding 1983). The numbers of Latham's Snipe that migrate to Australia each year are suspected to have been stable over the past 30 years (Garnett & Crowley 2000). For example, a comparison of species records collected from 1977 to 1981 (published in Blakers et al. 1984) and from 1998 to 2001 (published in Barrett et al. 2003) shows that there was no overall change in the reporting rate between the two sampling periods (Barrett et al. 2002). Historically however, there appears to have been a decline in the number of arrivals during the 20th century. Declines in population sizes were reported from New South Wales (Frith et al. 1977), Victoria (Humphreys 1986; Naarding 1983), Tasmania (Legge 1932; Littler 1910) and South Australia (Naarding 1983), although there is evidence for a slight and insignificant increase in the size of populations in Victoria and Tasmania following the cessation of hunting in 1984 and 1983 respectively (Naarding 1986). It is difficult to predict future trends in population size. However, future trends will depend on the extent and success of breeding in the northern hemisphere, and on the extent and quality of suitable habitat in eastern Australia. Based on current information and conditions, it appears likely that the total population size will remain stable for the foreseeable future (Weston 2006, pers. comm.). At the species level, Latham's Snipe is not known to undergo extreme natural fluctuations in population numbers, extent of occurrence or area of occupancy. However, because the snipe are highly mobile and move readily between sites as conditions change, local populations can exhibit rapid and significant

fluctuations in size (Naarding 1985, 1986). The generation length of Latham's Snipe is estimated to be 5 years. This estimate is considered to be of low reliability due to a lack of reliable life history data (Garnett & Crowley 2000). It is difficult to determine which sites are most important for Latham's Snipe in Australia because of difficulties associated with surveying the species. However, six important sites (i.e. those with major populations) have been identified based on surveys in Victoria, Tasmania and South Australia. In Victoria the Shepparton, Sale, Wonthaggi, Port Phillip Bay and Warrnambool regions appear to be important, while the Central Plateau region in Tasmania supports large colonies of Latham's Snipe (Naarding 1983). No information is available on cross-breeding. However, as Latham's Snipe does not breed in Australia (Higgins & Davies 1996), cross-breeding with other species within Australia is extremely unlikely.

Land Tenure of Populations

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Because of its mobility, Latham's Snipe is capable of occurring in any reserve (within its range) that contains suitable habitat (M.A. Weston 2006, pers. comm.). The Atlas of Australian Birds records Latham's Snipe in more than 60 conservation reserves since 1998 (n=302 records), including Canberra Nature Park in the Australian Capital Territory (n=79 records), Telford Scrub Conservation Park in South Australia (n=18 records), Pitt Town Nature Reserve in New South Wales (n=11 records), Southwest Conservation Area in Tasmania (n=11 records), Lake Broadwater Conservation Park in Queensland (n=10 records), Mornington Peninsula National Park in Victoria (n=10 records), Hat Head National Park in New South Wales (n=8 records), Lake Dulverton Conservation Area in Tasmania (n=8 records), Mother of Ducks Lagoon Nature Reserve in New South Wales (n=8 records) and Alpine National Park in Victoria (n=6 records) (Atlas of Australian Birds, unpublished data).

Habitat

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In Australia, Latham's Snipe occurs in permanent and ephemeral wetlands up to 2000 m above sea-level (Chapman 1969; Naarding 1981). They usually inhabit open, freshwater wetlands with low, dense vegetation (e.g. swamps, flooded grasslands or heathlands, around bogs and other water bodies) (Frith et al. 1977; Naarding 1983; Weston 2006, pers. comm.). However, they can also occur in habitats with saline or brackish water, in modified or artificial habitats, and in habitats located close to humans or human activity (Frith et al. 1977; Naarding 1983). Latham's Snipe occurs in temperate and tropical regions of Australia (Driscoll 1993). Its altitudinal range extends from sea-level (i.e. the coast) or possibly below. For example, there are records from near Lake Eyre (Higgins & Davies 1996) to approximately 2000 m above sea-level (Chapman 1969; Driscoll 1993). In Australia, Latham's Snipe occurs in a wide variety of permanent and ephemeral wetlands (Naarding 1981). They usually occur in open, freshwater wetlands that have some form of shelter (usually low and dense vegetation) nearby (Frith et al. 1977; Naarding 1983; Weston 2006, pers. comm.). They generally occupy flooded meadows, seasonal or semi-permanent swamps, or open waters (Frith et al. 1977; Naarding 1983), but various other freshwater habitats can be used including bogs, waterholes, billabongs, lagoons, lakes, creek or river margins, river pools and floodplains (Frith et al. 1977; Naarding 1981, 1983). The structure and composition of the vegetation that occurs around these wetlands is not important in determining the suitability of habitat (Naarding 1983). As such, snipe may be found in a variety of vegetation types or communities including tussock grasslands with rushes, reeds and sedges, coastal and alpine heathlands, lignum or tea-tree scrub, button-grass plains, alpine herbfields and open forest (Chapman 1969; Frith 1970; Frith et al. 1977; Naarding 1983; Wall 1990). Latham's Snipe sometimes occur in habitats that have saline or brackish water, such as saltmarsh, mangrove creeks, around bays and beaches, and at tidal rivers (Frith et al. 1977; Naarding 1983; Patterson 1991). These habitats are most commonly used when the birds are on migration (Frith et al. 1977). They are regularly recorded in or around modified or artificial habitats including pasture, ploughed paddocks, irrigation channels and drainage ditches, ricefields, orchards, saltworks, and sewage and dairy farms (Fielding 1979; Frith et al. 1977; Lane & Jessop 1985; Naarding 1982, 1983). They can also occur in various sites close to humans or human activity (e.g. near roads, railways, airfields, commercial or industrial complexes) (Frith et al. 1977; Naarding 1983). The foraging habitats of Latham's Snipe are characterized by areas of mud (either exposed or beneath a very shallow covering of water) and some form of cover (e.g. low, dense vegetation) (Frith et al. 1977; Todd 2000). The snipe roost on the ground near (or sometimes in) their foraging areas, usually in sites that provide some degree of shelter, e.g. beside or under clumps of vegetation, among dense tea-tree, in forests, in drainage ditches or plough marks, among boulders, or in shallow water if cover is unavailable (Frith et al. 1977; Naarding 1982, 1983). Latham's Snipe can occur coincidentally with the Painted Snipe *Rostratula benghalensis* (i.e. both species occupy similar habitats and may sometimes come into close proximity with one another) (Weston 2006, pers. comm.). The Painted Snipe (or Australian Painted Snipe) is listed as Vulnerable under the EPBC Act 1999. Latham's Snipe is known to occur in the upland wetlands of the New England Tablelands and Monaro Plateau, which is listed as an Endangered Threatened Ecological Community under the EPBC Act 1999 (DEH 2006). Based on the

snipe's distribution and habitat preferences, it could also occur in swamps of the Fleurieu Peninsula (which are listed as Critically Endangered under the EPBC Act 1999), temperate highland peat swamps on sandstone (which are listed as Endangered under the EPBC Act 1999), and in the community of native species dependent on natural discharge of groundwater from the Great Artesian Basin (which is listed as Endangered under the EPBC Act 1999). They could also potentially occur in Bluegrass *Dichanthium* dominant grasslands of the Brigalow Belt Bioregions (North and South) and in natural temperate grasslands of the Southern Tablelands of New South Wales and the Australian Capital Territory (both of which are listed as Endangered under the EPBC Act 1999) if either of these communities are subject to flooding.

Life Cycle

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No precise information is available on the life expectancy, although banding data indicates that birds are capable of surviving for more than four years (Driscoll 1993). The age of sexual maturity is unknown, but birds probably breed for the first time at one or two years of age (Frith et al. 1977; Naarding 1982).

Latham's Snipe does not breed within Australian jurisdiction. The breeding range is confined to Japan and far eastern Russia (Higgins & Davies 1996; Naarding 1986). For summaries of the breeding biology of this species, see del Hoyo et al. (1996) or Driscoll (1993).

Feeding

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Latham's Snipe is an omnivorous species that feeds on seeds and other plant material (mainly from species in families such as Cyperaceae, Poaceae, Juncaceae, Polygonaceae, Ranunculaceae and Fabaceae), and on invertebrates including insects (mainly flies and beetles), earthworms and spiders and occasionally molluscs, isopods and centipedes (Frith et al. 1977; Todd 2000). The composition of the diet can vary somewhat over the duration of the species' stay in Australia, but no clear patterns have been determined (Frith et al. 1977; Todd 2000). Latham's Snipe forage during the day or at night. They use their bills to jab and probe into mud that may be exposed or covered by very shallow water (Frith et al. 1977; Todd 2000).

Movement Patterns

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Latham's Snipe is a migratory species. It breeds in Japan and in far eastern Russia during the northern summer and then migrates to Australia, where it remains for the duration of the northern winter. The routes of migration outside of Japan and Australia are poorly known (Frith et al. 1977; Naarding 1985), but the lack of records from locations between Japan or Russia and Australia (Frith et al. 1977; Watkins 1993) suggests that snipe fly fairly directly between the breeding grounds and Australia (Higgins & Davies 1996; Watkins 1993). Based on the times of arrival and departure, the journey between the breeding grounds and Australia probably takes only a few days (Naarding 1984, 1985). Latham's Snipe depart their breeding grounds from July to November (Higgins & Davies 1996; Naarding 1985) and arrive in northern Australia from July to November (Frith et al. 1977; Higgins & Davies 1996). They then move slowly southward, passing along the coastline and through regions near the coast (Frith et al. 1977; Storr 1984). They arrive in south-eastern Australia between August and January (Higgins & Davies 1996; Lane 1987; Naarding 1982, 1983), and it is here that most snipe spend the non-breeding period. Most birds are found south of the Richmond River in New South Wales (Frith et al. 1977); few (if any) remain in northern Australia over the southern summer (Higgins & Davies 1996; Lane 1987). Most snipe depart the non-breeding areas in south-eastern Australia by late February or early March (Frith et al. 1977; Naarding 1982, 1983). They travel north along the coasts of New South Wales and Queensland (Storr 1984), and pass through Queensland from February to April (most birds depart northern Queensland by mid-April) (Bravery 1964; Gill 1970; Frith et al. 1977). They arrive in Japan in April (Naarding 1984, 1985; Wolfe 1954) and in Russia in April and May (Higgins & Davies 1996). There are records of snipe persisting in Australia during the southern winter (i.e. the breeding season); these records are probably of immature birds or birds that are incapable of migrating because of poor condition (Naarding 1981, 1982). The regularity with which birds remain in Australia over winter is unknown (Naarding 1982). Latham's Snipe is dispersive during its stay in Australia. The snipe probably move in response to rainfall and the availability of food (Frith et al. 1977). For example, snipe abandon seasonally drying wetlands and move to wetter or more permanent habitats elsewhere (Naarding 1982, 1983). Data from regular counts in southern Australia indicate that the species is highly mobile during the non-breeding season (Naarding 1983, 1984). Breeding pairs appear to occupy and advertise territories (Driscoll 1993; Naarding 1984, 1985). However, the species does not breed within Australian jurisdiction (Higgins & Davies 1996).

Survey Guidelines

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Latham's Snipe could easily be confused with the Pin-tailed Snipe *Gallinago stenura* or with Swinhoe's Snipe *G. megala*. All three species visit Australia and are very similar in size, shape, appearance, behaviour and habitat preferences. It is possible to distinguish Latham's Snipe from the other two species, but identification requires careful assessment of a range of characters, including slight differences in size and structure, and separation is sometimes impossible (Higgins & Davies 1996). Latham's Snipe are not easily detected. Their plumage provides them with a natural

camouflage that makes them difficult to see amongst the vegetation that is typical of their preferred habitats. They are extremely shy and wary, and may crouch down or remain motionless when approached by an observer; and they are mostly active under the cover of darkness (i.e. during the night, or in the morning before sunrise) (Higgins & Davies 1996; Naarding 1982, 1983; Weston 1995).

Populations of Latham's Snipe can be surveyed by performing area searches or line transects in suitable habitat (i.e. wetlands or other waterbodies and their surrounding vegetation) (Naarding 1986). The surveys should be conducted on foot (M.A. Weston February 2006, pers. comm.). To maximise the chances of detecting all birds present, a number of observers should arrange themselves into a line and then advance in unison, preferably whilst accompanied by bird dogs (Naarding 1986). Another potential technique is to drag a length of rope over an area of suitable habitat (M.A. Weston February 2006, pers. comm.).

Mist-netting can also be used to capture birds, and potentially to derive capture-recapture estimates to estimate population sizes. However, the effort required to derive a population estimate using this method is likely to be impractical (M.A. Weston February 2006, pers. comm.).

In Australia, surveys should be conducted between October and February, which is the period between the species' arrival and departure in Australia. Surveys are best conducted during the day, as the snipe appears to disperse from roosting areas at dusk and then return before or at dawn (M.A. Weston February 2006, pers. comm.).

Threats

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Historically, the greatest threats to Latham's Snipe in Australia have been a loss of habitat caused by the drainage and modification of wetlands, and excessive mortality due to hunting (Frith et al. 1977; Littler 1910; Naarding 1985). The loss of habitat in Australia has been extensive, with many of the wetlands traditionally occupied by snipe having been drained or modified (Frith et al. 1977; Naarding 1983). The impact of habitat loss upon the species is largely unknown, although it has been implicated as a likely cause of some population declines (Littler 1910), and has probably been a factor in others (M.A. Weston, 2006, pers. comm.).

The past impacts of shooting are better known. The species was formerly hunted, legally, in all states in eastern Australia. It has been estimated that up to 10 000 birds (including 6000 birds in Victoria and 1000 birds in Tasmania) were killed annually by hunters before bans on shooting were introduced in 1976 (in New South Wales), 1983 (in Tasmania) and 1984 (in Victoria) (shooting is also banned in Queensland and South Australia, but the dates at which bans were introduced are unknown) (Naarding 1981, 1983, 1985, 1986; M.A. Weston February 2006, pers. comm.).

The current major threat to the species appears to be the ongoing loss of habitat. The wetland habitats occupied by Latham's Snipe are threatened by a variety of processes including drainage, diversion of water for storage or agriculture, development of land for urban or other purposes, and land management practices such as mowing of habitat during summer can render it unsuitable for several months (Frith et al. 1977; Garnett & Crowley 2000; Naarding 1981, 1985; Weston 1995). The habitat is also potentially threatened by vegetational replacement: on Cape York Peninsula, grasslands occupied by snipe on migration are being replaced by Broad-leaved Tea-tree *Melaleuca viridiflora* woodland, although the current rate of replacement (5% per decade) is not sufficient to threaten the species at present (Crowley & Garnett 1998; Garnett & Shephard 1997; Garnett & Crowley 2000).

There do not appear to be any other major threats to the species at present. The birds are said to be easily disturbed by the intrusion of humans or cattle into their habitats (Naarding 1983), but some populations occupy wetlands that are prone to disturbance, e.g. near industrial complexes, roads or railways, airfields, within school grounds (Higgins & Davies 1996; Naarding 1982, 1983). The pollution of wetlands (via nutrient enrichment, industrial discharge or inappropriate land management practices) and the salinisation of wetlands are potential threats to the snipe (Melville 1997; M.A. Weston February 2006, pers. comm.), but no information is available on the impact of pollution or salinisation upon snipe populations.

Collisions with vehicles could be a potential minor threat to some snipe, as birds are known to roost at times beside roadside puddles (M.A. Weston February 2006, pers. comm.).

Major Studies

Top

There have been two major studies of Latham's Snipe in Australia by Frith et al. (1977) and Todd (2000).

Species Profile References

Top

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