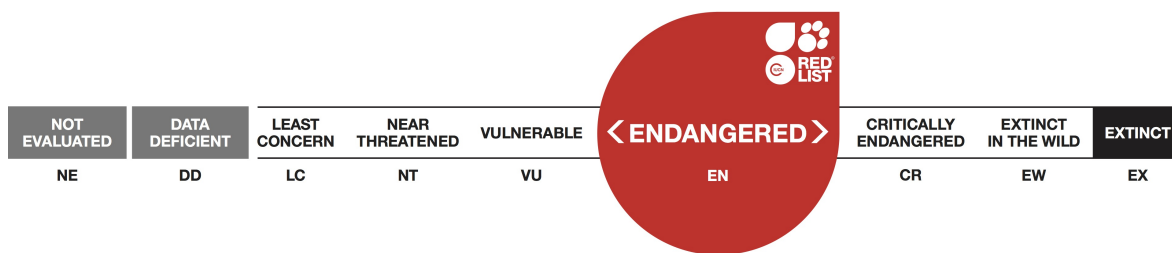


Numenius madagascariensis, Far Eastern Curlew

Amended version

Assessment by: BirdLife International



View on www.iucnredlist.org

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Aves	Charadriiformes	Scolopacidae

Taxon Name: *Numenius madagascariensis* (Linnaeus, 1766)

Common Name(s):

- English: Far Eastern Curlew, Eastern Curlew

Taxonomic Source(s):

Turbott, E.G. 1990. *Checklist of the Birds of New Zealand*. Ornithological Society of New Zealand, Wellington.

Identification Information:

63 cm. Largest wader in New Zealand. Greyish brown and buff streaked body; very long downcurved bill (19 cm). **Similar spp.** Distinguished from other similar species by large size and very long bill. **Voice** Flight call 'croo-lee'.

Assessment Information

Red List Category & Criteria: Endangered A2bc+3bc+4bc [ver 3.1](#)

Year Published: 2017

Date Assessed: October 1, 2016

Justification:

This species has been uplisted to Endangered as new information suggests it is undergoing a very rapid population decline which is suspected to have been primarily driven by habitat loss and deterioration in the Yellow Sea region. Further proposed reclamation projects are predicted to cause additional declines in the future

Previously Published Red List Assessments

2016 – Endangered (EN)

<http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T22693199A93390578.en>

2015 – Endangered (EN)

<http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T22693199A67194768.en>

2012 – Vulnerable (VU)

<http://dx.doi.org/10.2305/IUCN.UK.2012-1.RLTS.T22693199A37847378.en>

2010 – Vulnerable (VU)

2009 – Least Concern (LC)

2008 – Least Concern (LC)

2004 – Least Concern (LC)

2000 – Lower Risk/near threatened (LR/nt)

1994 – Lower Risk/near threatened (LR/nt)

1988 – Lower Risk/least concern (LR/lc)

Geographic Range

Range Description:

This species breeds in eastern **Russia**, from the upper reaches of the Nizhnyaya Tunguska river east through the Verkhoyarsk mountains to Kamchatka, and south to Primorye and north-eastern **Mongolia** (del Hoyo *et al.* 1996). The Yellow Sea region of

Democratic People's Republic of Korea, Republic of Korea and **China** is a particularly important stopover site on northward and southward migration. It has been recorded as a passage migrant in **Japan**, **Brunei**, **Bangladesh**, **Thailand**, **Viet Nam**, **Philippines**, **Malaysia** and **Singapore**, with up to 75% of the population wintering in **Australia**. The remaining proportion of the population winters in China, **Indonesia**, **Papua New Guinea**, and **New Zealand** (del Hoyo *et al.* 1996). The global population has recently been estimated at 32,000 individuals (Wetlands International 2015), including 28,000 in Australia (Bamford *et al.* 2008). The global population is declining, as indicated by reduced numbers at stopover points in the Republic of Korea and Japan, and a rapid decline in the number of non-breeding individuals wintering in Australia and New Zealand (Amano 2006, Gosbell and Clemens 2006, Moores *et al. in litt.* 2008, D. Rogers *et al. in litt.* 2009, Wilson *et al.* 2011, Studds *et al. in prep.*). In 2015, the Australian Government listed the species as Critically Endangered under Australia's national environmental law (M. Carey *in litt.* 2016).

Country Occurrence:

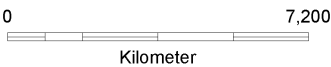
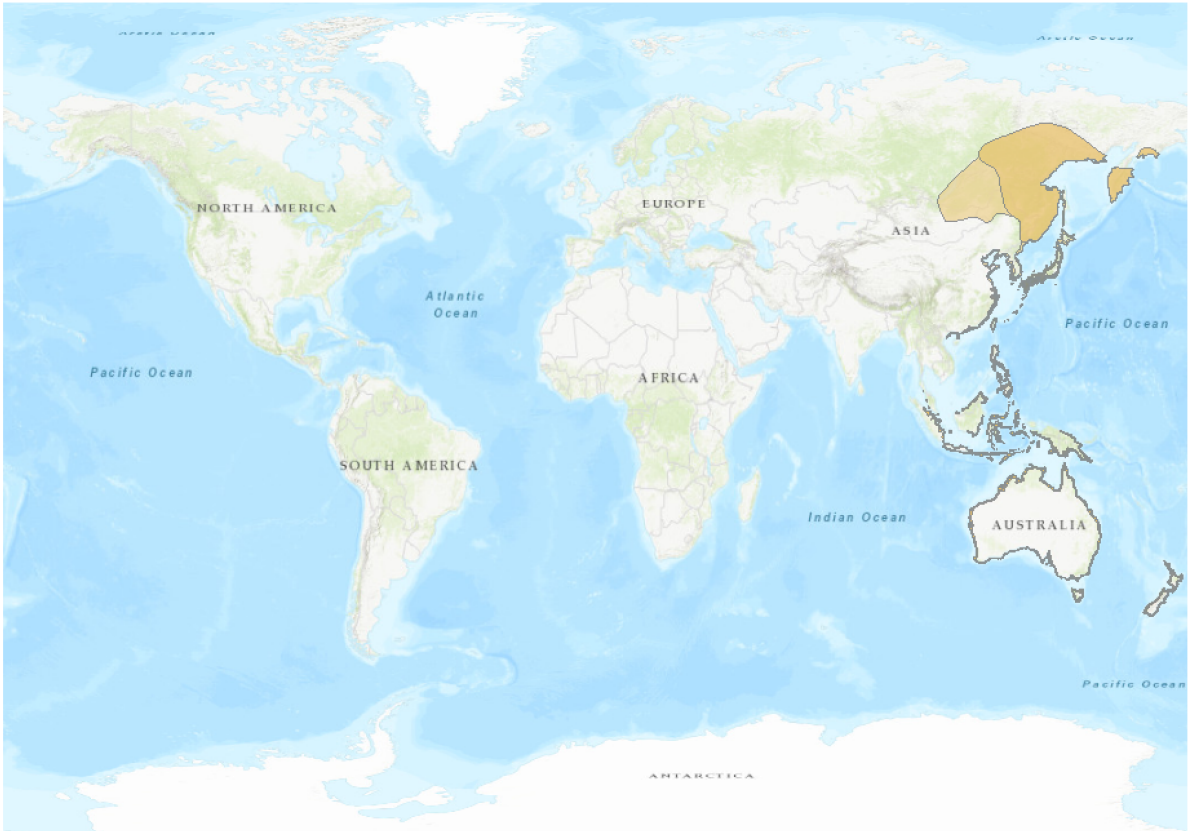
Native: Australia; Brunei Darussalam; China; Fiji; Guam; Hong Kong; Indonesia; Japan; Korea, Democratic People's Republic of; Korea, Republic of; Malaysia; Micronesia, Federated States of ; Mongolia; New Zealand; Northern Mariana Islands; Palau; Papua New Guinea; Philippines; Russian Federation (Eastern Asian Russia); Singapore; Taiwan, Province of China; Thailand; Timor-Leste; Viet Nam

Vagrant: Bangladesh; Iran, Islamic Republic of; Oman; United States

Present - origin uncertain: Afghanistan

Distribution Map

Numenius madagascariensis



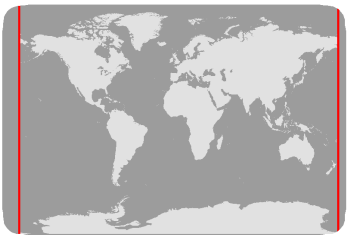
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Range

- Extant (breeding)
- Extant (non breeding)
- Extant (passage)

Compiled by:

BirdLife International and Handbook of the Birds of the World (2017)



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



Population

Wetlands International (2006) estimated the global population at c. 38,000 individuals, although a more recent update now estimates the population at 32,000 individuals (Wetlands International 2015). It is therefore placed in the band 20,000-49,999 individuals.

Trend Justification

An analysis of monitoring data collected from around Australia and New Zealand (Studds *et al.* in prep.) suggests that the species has declined much more rapidly than was previously thought; with an annual rate of decline of 0.058 equating to a loss of 81.7% over three generations. Loss of habitat at critical stopover sites in the Yellow Sea is suspected to be the key threat to this species and given that it is restricted to the East Asian-Australasian Flyway, the declines in the non-breeding population are thought to be representative of the global population.

Local-scale declines have also been reported: the species has been declining steadily in Australia, at a rate of 2.4% annually in Moreton Bay between 1992 and 2008 (Wilson *et al.* 2011); c. 5% annually in Victoria between 1980 and 2010 (D. Rogers *in litt.* 2012); by over 65% in Tasmania since the 1950s (Reid and Park 2003); and by 40% across 49 Australian sites between c. 1983 and c. 2007 (D. Rogers *et al. in litt.* 2009, Birds Australia *in litt.* to Garnett *et al.* 2011). Declines seem equally worrying in North-western Australia (D. Rogers *in litt.* 2012). Furthermore, the population at Saemangeum (South Korea) has decreased by 32.6% (c. 1,800 birds) between 2006 and 2008 due to the reclamation of tidal flats (Moores 2006, Moores *et al. in litt.* 2008). Although these sites only represent a proportion of the wintering and stopover populations, threats are widespread and are projected to cause population declines in the future (D. Rogers *in litt.* 2009). Given that more reclamation is proposed within the Yellow Sea, with widespread threats elsewhere on the flyway, it is assumed that these declines will continue.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

The species breeds on open mossy or transitional bogs, moss-lichen bogs and wet meadows, and on the swampy shores of small lakes; in the non-breeding season it is essentially coastal, occurring at estuaries, mangrove swamps, saltmarshes and intertidal flats, particularly those with extensive seagrass (Zosteraceae) meadows. It often roosts in salt-marshes, behind mangroves, or on sandy beaches (del Hoyo *et al.* 1996). As well as tidal flats, salt-pans in the Inner Gulf of Thailand provide important roosting and feeding sites for overwintering shorebirds such as *N. madagascariensis* (Sripanomyom *et al.* 2011). Its diet on breeding grounds includes insects, such as larvae of beetles and flies, and amphipods. Berries are also consumed during the autumn migration. In non-breeding areas it feeds on marine invertebrates, preferentially taking crabs and small molluscs but also feeding on other crustaceans and polychaete worms (del Hoyo *et al.* 1996). This migratory wader nests from early May to late June, often in small colonies of 2-3 pairs, with an average clutch size of four eggs. It probably delays maturity longer than most shorebirds, perhaps not breeding until 3-4 years old (del Hoyo *et al.* 1996, Rogers 2006).

Systems: Terrestrial, Freshwater, Marine

Threats (see Appendix for additional information)

Habitat loss on the Yellow Sea staging grounds is probably the primary threat to the species, with loss of stopover sites thought to be responsible for shorebird population declines on the East Asian-Australasian Flyway (Amano *et al.* 2010, Yang *et al.* 2011). It is estimated that up to 65% of intertidal habitat in the Yellow Sea has been lost over the past 50 years, with the rate of habitat loss estimated at >1% every year (Murray *et al.* 2014). This scale of habitat loss is predicted to continue owing to growing populations around the Yellow Sea. It is difficult to ascertain whether declines seen at reclaimed sites such as Saemangeum represent true declines, or whether the birds have simply been displaced (Moores *et al. in litt.* 2008, D. Rogers *in litt.* 2009), but the former seems more probable, given the huge scale of habitat loss in the Yellow Sea. Wetland degradation in the Yellow Sea may affect the species where it stages on migration (Bamford *et al.* 2008, van de Kam *et al.* 2010). Further threats may include disturbance at the nesting and feeding sites (Taylor & Bester 1999 in Conservation Advice 2015), direct persecution throughout its range, and a decrease in the availability of food due to pollution at stopover points in South Korea. Furthermore, females probably tend to migrate further south to southern Australian wetlands which are more threatened than those in northern Australia (del Hoyo *et al.* 1996).

Conservation Actions (see Appendix for additional information)

Conservation and Research Actions Underway

CMS Appendix I and II. The species was accepted as a Concerted Action species under CMS in November 2014 (Anon. 2014). Population trends are being monitored in Australia as part of BirdLife Australia's shorebirds 2020 programme. The species is included in the Action Plan for Australian Birds 2010 (Garnett *et al.* 2011) and was recently uplisted as Critically Endangered in Australia. The East Asian - Australasian Flyway Partnership Far Eastern Curlew Task Force is developing an International Single Species Action Plan for the species with Range States, Partners and research organisations within the Flyway (M. Carey *in litt.* 2016).

Conservation and Research Actions Proposed Identify key stopover areas and work with governments along the East Asian- Australasian Flyway to prevent destruction/reclamation of important staging sites. Continue to monitor population trends. Restore reclaimed wetland sites. Campaign to stop shorebird hunting in Asian countries. Legally protect it in all range states. Survey the breeding grounds for potential threats. The proposal for listing as a species for Concerted Action under CMS stated that conservation actions were needed to: 1) Protect staging habitat and manage habitat in the Yellow River Delta and remaining habitat at Yala Jiang and other sites in the Yellow Sea; 2) Manage shellfisheries at key sites to benefit the species (Leyrer *et al.* 2014). The Australian Government's approved Conservation Advice states that the protection of roosting and feeding sites in Australia should be maintained and improved and the requirements of the species should be incorporated into coastal planning. Important sites should also be managed to reduce disturbance when the species is present, and to identify and reduce the threat of invasive species (Conservation Advice 2015).

Credits

Assessor(s): BirdLife International

Reviewer(s): Butchart, S. & Symes, A.

Contributor(s): Amano, H., Moores, N., Rogers, D., Crockford, N. & Carey, M.

**Facilitators(s) and
Compiler(s):** Benstead, P., Butchart, S., Calvert, R., Derhé, M., Ekstrom, J., Harding, M., Symes, A., Ashpole, J, North, A., Wheatley, H.

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Citation

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External Resources

For [Images and External Links to Additional Information](#), please see the Red List website.

Appendix

Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.1. Forest - Boreal	Breeding	Suitable	No
5. Wetlands (inland) -> 5.4. Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands	Breeding	Suitable	Yes
5. Wetlands (inland) -> 5.5. Wetlands (inland) - Permanent Freshwater Lakes (over 8ha)	Breeding	Suitable	No
9. Marine Neritic -> 9.10. Marine Neritic - Estuaries	Non-breeding	Suitable	Yes
12. Marine Intertidal -> 12.4. Marine Intertidal - Mud Flats and Salt Flats	Non-breeding	Suitable	No
12. Marine Intertidal -> 12.5. Marine Intertidal - Salt Marshes (Emergent Grasses)	Non-breeding	Suitable	No

Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.2. Commercial & industrial areas	Ongoing	Majority (50-90%)	Very rapid declines	High impact: 8
	Stresses:	1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Future	Whole (>90%)	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.3. Agro-industry farming	Ongoing	Minority (50%)	Slow, significant declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
2. Agriculture & aquaculture -> 2.4. Marine & freshwater aquaculture -> 2.4.2. Industrial aquaculture	Ongoing	Majority (50-90%)	Slow, significant declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.1. Intentional use (species is the target)	Ongoing	Minority (50%)	Slow, significant declines	Low impact: 5
	Stresses:	2. Species Stresses -> 2.1. Species mortality		

5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.4. Unintentional effects: (large scale) [harvest]	Ongoing	Minority (50%)	Slow, significant declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.4. Type Unknown/Unrecorded	Future	Minority (50%)	Slow, significant declines	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		

Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions in Place
In-Place Research, Monitoring and Planning
Action Recovery plan: No
Systematic monitoring scheme: Yes
In-Place Land/Water Protection and Management
Conservation sites identified: Yes, over entire range
Occur in at least one PA: Yes
Invasive species control or prevention: No
In-Place Species Management
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: No
In-Place Education
Subject to recent education and awareness programmes: No
Included in international legislation: Yes
Subject to any international management/trade controls: No

Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions Needed
1. Land/water protection -> 1.1. Site/area protection
2. Land/water management -> 2.1. Site/area management
2. Land/water management -> 2.3. Habitat & natural process restoration
4. Education & awareness -> 4.3. Awareness & communications

Conservation Actions Needed
5. Law & policy -> 5.1. Legislation -> 5.1.2. National level
6. Livelihood, economic & other incentives -> 6.1. Linked enterprises & livelihood alternatives

Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Research Needed
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends

Additional Data Fields

Distribution
Continuing decline in area of occupancy (AOO): Yes
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km ²): 5590000
Continuing decline in extent of occurrence (EOO): Unknown
Extreme fluctuations in extent of occurrence (EOO): No
Continuing decline in number of locations: Yes
Extreme fluctuations in the number of locations: No
Population
Continuing decline of mature individuals: Yes
Extreme fluctuations: No
Population severely fragmented: No
Continuing decline in subpopulations: Unknown
Extreme fluctuations in subpopulations: No
All individuals in one subpopulation: No
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 10.1
Movement patterns: Full Migrant
Congregatory: Congregatory (and dispersive)

Amended

Amended reason: Map edited: Changed Mongolian range from breeding to passage. Adjusted breeding range. EOO updated.

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