

NEW ZEALAND – Country Data Dossier for Reducing Risk of Extinction Summary Sheet

Summary Table of Threatened Species Identified by the IUCN Red List

Mammals	Birds	Reptiles*	Amphibians	Fishes*	Molluscs*	Other Inverts*	Plants*
9	69	14	4	34	32	14	21

Amphibian, Mammal, Plant*, and Reptile* Threatened Species Identified by the IUCN Red List

In New Zealand:

- Out of 4 amphibian species, 4 are threatened or extinct
- Out of 44 mammal species, 8 are threatened or extinct
- Out of 118 plant species, 21 are threatened or extinct
- Out of 31 reptile species, 15 are threatened or extinct

List of Threatened Species Identified by the IUCN Red List

New Zealand has:

- 1 Critically Endangered (CR) amphibian species: *Leiopelma archeyi*
- 1 Critically Endangered (CR) mammal species: *Mystacina robusta*
- 4 Critically Endangered (CR) plant* species: *Chordospartium muritai*, *Metrosideros bartlettii*, *Pennantia baylisiana*, *Puccinellia raroflorens*.

List of Bird Threatened Species

- New Zealand has 6 Critically Endangered (CR) bird species: *Phalacrocorax onslowi*, *Fregetta maoriana*, *Pterodroma magenta*, *Strigops habroptila*, *Cyanoramphus malherbi*, *Himantopus novaezelandiae*.

List of Critically Endangered Endemic Species

- Out of 1 Critically Endangered (CR) amphibian species, New Zealand has 0 endemic amphibian species
- Out of 1 Critically Endangered (CR) mammal species, New Zealand has 0 endemic mammal species
- Out of 4 Critically Endangered (CR) plant species, New Zealand has 4 endemic plant species: *Puccinellia raroflorens*, *Pennantia baylisiana*, *Chordospartium muritai*, *Metrosideros bartlettii*
- Out of 6 Critically Endangered (CR) bird species, New Zealand has 6 endemic bird species: *Phalacrocorax onslowi*, *Fregetta maoriana*, *Pterodroma magenta*, *Strigops habroptila*, *Cyanoramphus malherbi*, *Himantopus novaezelandiae*.

*Reptiles, fishes, molluscs, other invertebrates and plants: please note that for these groups, there are still many species that have not yet been assessed by the IUCN Red List and therefore, their status is not known. The figures presented for these groups should be interpreted as the number of species known to be threatened within those species that have been assessed to date, and not as the overall total number of threatened species for each group.

NEW ZEALAND – Summary Table of Threatened Species Identified by the IUCN Red List, Amphibian, Mammal, Plant, and Reptile Threatened Species Identified by the IUCN Red List, List of Threatened Species Identified by the IUCN Red List, Bird Threatened Species, List of Threatened Bird Species, Species Protection Statistics (All PAs), and Critically Endangered Endemic Species

Summary Table of Threatened Speciesⁱ Identified by the IUCN Red List²

Mammals	Birds	Reptiles*	Amphibians	Fishes*	Molluscs*	Other Inverts*	Plants*
9	69	14	4	34	32	14	21

Amphibian, Mammal, Plant*, and Reptile* Threatened Species Identified by the IUCN Red List

In New Zealand:

- Out of 4 amphibian species, 4 are threatened or extinct ³
- Out of 44 mammal species, 8 are threatened or extinct ⁴
- Out of 118 plant species, 21 are threatened or extinct ⁵
- Out of 31 reptile species, 15 are threatened or extinct

² IUCN 2015. *The IUCN Red List of Threatened Species. Version 2015.1.*

http://cmsdocs.s3.amazonaws.com/summarystats/2015_2_Summary_Stats_Page_Documents/2015_2_RL_Stats_Table_5.pdf. Accessed on 11 April 2016.

³ IUCN 2015. *The IUCN Red List of Threatened Species. Version 2015.1.* <http://www.iucnredlist.org>. As available on 1 June 2015.

⁴ Ibid.

⁵ IUCN 2015. *The IUCN Red List of Threatened Species. Version 2015.1.*

http://cmsdocs.s3.amazonaws.com/summarystats/2015_2_Summary_Stats_Page_Documents/2015_2_RL_Stats_Table_6b.pdf. Accessed on 11 April 2016.

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Class	Total number of native species (incl. EX)	Number of native endemics	% of species that are endemic	Number of Threatened species (CR+EN+VU)	% threatened or extinct	Threatened endemics	Critically Endangered species (CR)	Endangered species (EN)	Vulnerable species (VU)
Amphibian	4	4	100	4	100	4	1	1	2
Mammal	44	4	9	8	18	4	0	4	4
Plant*	118	-	-	21	18	-	4	5	12
Reptile*	31	-	-	15	48	-	0	2	13

List of Threatened Speciesⁱⁱ Identified by the IUCN Red List^{6 7}

New Zealand has:

- 1 Critically Endangered (CR) amphibian species
- 1 Critically Endangered (CR) mammal species
- 4 Critically Endangered (CR) plant* species
- 0 Critically Endangered (CR) reptile* species

Legend

In **red**: Critically Endangered (CR) species

In **blue**: Endangered (EN) species

In **black**: Vulnerable (VU) species

⁶ IUCN 2015. *The IUCN Red List of Threatened Species. Version 2015.1*. www.iucnredlist.org. Accessed on 11 April 2016.

⁷ There might be discrepancies between Section 1: *Summary Table of Threatened Species Identified by the IUCN Red List*, Section 2: *Amphibian, Mammal, Plant and Reptile Threatened Species Identified by the IUNC Red List* and Section 3: *List of Threatened Species Identified by the IUCN Red List*. Information used in the tables in sections 1 and 2 was published on 1 June 2015 whereas information used in section 3 is from the IUCN Red List Online database, which is updated on a regular basis.

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Amphibians (Class)

Phylum: Chordata, Kingdom: Animalia

Species ID	Order	Family	Genus	Species	Red List status	Red List criteria	Red List criteria version	Year assessed	Population trend
11450	ANURA	LEIOPELMATIDAE	<i>Leiopelma</i>	<i>archeyi</i>	CR	A2ae	3.1	2004	decreasing
11451	ANURA	LEIOPELMATIDAE	<i>Leiopelma</i>	<i>hamiltoni</i>	VU	D1+2	3.1	2015	increasing
56298	ANURA	LEIOPELMATIDAE	<i>Leiopelma</i>	<i>pakeka</i>	VU	D2	3.1	2015	stable

Mammals (Class)

Phylum: Chordata, Kingdom: Animalia

Species ID	Order	Family	Genus	Species	Red List status	Red List criteria	Red List criteria version	Year assessed	Population trend
2475	CETARTIODACTYLA	BALAENOPTERIDAE	<i>Balaenoptera</i>	<i>borealis</i>	EN	A1ad	3.1	2008	unknown
2477	CETARTIODACTYLA	BALAENOPTERIDAE	<i>Balaenoptera</i>	<i>musculus</i>	EN	A1abd	3.1	2008	increasing
2478	CETARTIODACTYLA	BALAENOPTERIDAE	<i>Balaenoptera</i>	<i>physalus</i>	EN	A1d	3.1	2013	unknown
4162	CETARTIODACTYLA	DELPHINIDAE	<i>Cephalorhynchus</i>	<i>hectori</i>	EN	A4d	3.1	2013	decreasing
4425	CHIROPTERA	VESPERTILIONIDAE	<i>Chalinolobus</i>	<i>tuberculatus</i>	VU	A2ace	3.1	2008	decreasing
14260	CHIROPTERA	MYSTACINIDAE	<i>Mystacina</i>	<i>robusta</i>	CR	D	3.1	2008	unknown
14261	CHIROPTERA	MYSTACINIDAE	<i>Mystacina</i>	<i>tuberculata</i>	VU	B1ab(i,ii,iii,iv,v) +2ab(i,ii,iii,iv,v)	3.1	2008	decreasing
17026	CARNIVORA	OTARIIDAE	<i>Phocarcos</i>	<i>hookeri</i>	EN	A4bd	3.1	2015	decreasing
41755	CETARTIODACTYLA	PHYSETERIDAE	<i>Physeter</i>	<i>macrocephalus</i>	VU	A1d	3.1	2008	unknown

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Plants*(Kingdom)

Phylum: Tracheophyta

Species ID	Class	Order	Family	Genus	Species	Red List status	Red List criteria	Red List criteria version	Year assessed	Population trend
30480	MAGNOLIOPSIDA	ASTERALES	COMPOSITAE	<i>Brachyglottis</i>	<i>arborescens</i>	EN	D	2.3	1998	N/A
34298	MAGNOLIOPSIDA	ASTERALES	COMPOSITAE	<i>Brachyglottis</i>	<i>huntii</i>	VU	B1+2c	2.3	1998	N/A
38399	MAGNOLIOPSIDA	ASTERALES	COMPOSITAE	<i>Brachyglottis</i>	<i>pentacopa</i>	VU	D2	2.3	1998	N/A
32309	MAGNOLIOPSIDA	FABALES	LEGUMINOSAE	<i>Chordospartium</i>	<i>muritai</i>	CR	D	2.3	1998	N/A
30488	MAGNOLIOPSIDA	FABALES	LEGUMINOSAE	<i>Chordospartium</i>	<i>stevensonii</i>	VU	D2	2.3	1998	N/A
30385	MAGNOLIOPSIDA	FABALES	LEGUMINOSAE	<i>Clianthus</i>	<i>puniceus</i>	EN	D	2.3	1998	N/A
34900	MAGNOLIOPSIDA	RUBIALES	RUBIACEAE	<i>Coprosma</i>	<i>wallii</i>	VU	B1+2c, D2	2.3	1998	N/A
44392631	LILIOPSIDA	CYPERALES	GRAMINEAE	<i>Cortaderia</i>	<i>turbaria</i>	VU	D1	3.1	2013	stable
30482	MAGNOLIOPSIDA	PRIMULALES	MYRSINACEAE	<i>Elingamita</i>	<i>johnsonii</i>	VU	D2	2.3	1998	N/A
30493	MAGNOLIOPSIDA	SCROPHULARIALES	SCROPHULARIACEAE	<i>Hebe</i>	<i>barkeri</i>	VU	D2	2.3	1998	N/A
30494	MAGNOLIOPSIDA	EUPHORBIALES	EUPHORBIACEAE	<i>Homalanthus</i>	<i>polyandrus</i>	VU	D2	2.3	1998	N/A
34300	MAGNOLIOPSIDA	APIALES	ARALIACEAE	<i>Meryta</i>	<i>sinclairii</i>	VU	D2	3.1	2014	stable
34295	MAGNOLIOPSIDA	MYRTALES	MYRTACEAE	<i>Metrosideros</i>	<i>bartlettii</i>	CR	C2a(i); D	3.1	2014	decreasing
30483	MAGNOLIOPSIDA	PRIMULALES	MYRSINACEAE	<i>Myrsine</i>	<i>oliveri</i>	VU	D2	2.3	1998	N/A
34296	MAGNOLIOPSIDA	ASTERALES	COMPOSITAE	<i>Olearia</i>	<i>hectori</i>	EN	C2a	2.3	1998	N/A
34297	MAGNOLIOPSIDA	ASTERALES	COMPOSITAE	<i>Olearia</i>	<i>polita</i>	EN	C2b	2.3	1998	N/A
30481	MAGNOLIOPSIDA	CELASTRALES	ICACINACEAE	<i>Pennantia</i>	<i>baylisiana</i>	CR	D	3.1	2014	stable
30403	MAGNOLIOPSIDA	ROSALES	PITTOSPORACEAE	<i>Pittosporum</i>	<i>dallii</i>	VU	B1+2c	2.3	1998	N/A
30484	MAGNOLIOPSIDA	ROSALES	PITTOSPORACEAE	<i>Pittosporum</i>	<i>fairchildii</i>	VU	D2	2.3	1998	N/A
34899	MAGNOLIOPSIDA	ROSALES	PITTOSPORACEAE	<i>Pittosporum</i>	<i>patulum</i>	EN	D	2.3	1998	N/A
44393582	LILIOPSIDA	CYPERALES	GRAMINEAE	<i>Puccinellia</i>	<i>raroiflorens</i>	CR	B2ab(iii)	3.1	2013	unknown

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Reptiles* (Class)

Phylum: Chordata, Kingdom: Animalia

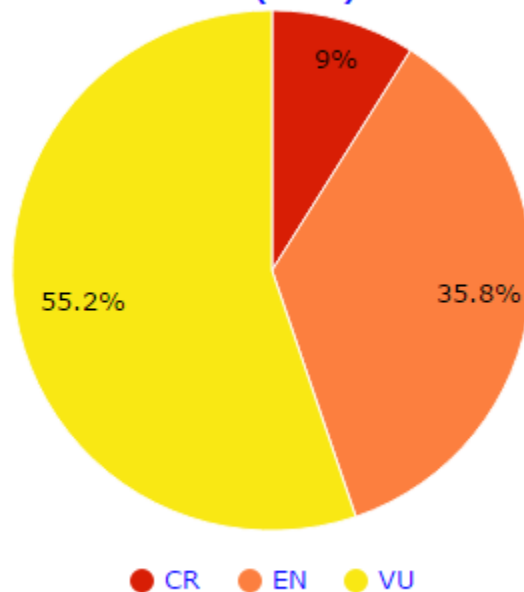
Species ID	Order	Family	Genus	Species	Red List status	Red List criteria	Red List criteria version	Year assessed	Population trend
3897	TESTUDINES	CHELONIIDAE	<i>Caretta</i>	<i>caretta</i>	VU	A2b	3.1	2015	decreasing
4615	TESTUDINES	CHELONIIDAE	<i>Chelonia</i>	<i>mydas</i>	EN	A2bd	3.1	2004	decreasing
6494	TESTUDINES	DERMOCHELYIDAE	<i>Dermochelys</i>	<i>coriacea</i>	VU	A2bd	3.1	2013	decreasing
10253	SQUAMATA	DIPODACTYLIDAE	<i>Hoplodactylus</i>	<i>stephensi</i>	VU	D2	2.3	1996	N/A
6010	SQUAMATA	SCINCIDAE	<i>Oligosoma</i>	<i>alani</i>	VU	D1+2	2.3	1996	N/A
15263	SQUAMATA	SCINCIDAE	<i>Oligosoma</i>	<i>fallai</i>	VU	D2	3.1	2010	stable
15257	SQUAMATA	SCINCIDAE	<i>Oligosoma</i>	<i>grande</i>	VU	C2a	2.3	1996	N/A
15256	SQUAMATA	SCINCIDAE	<i>Oligosoma</i>	<i>homalonotum</i>	VU	D2	2.3	1996	N/A
6011	SQUAMATA	SCINCIDAE	<i>Oligosoma</i>	<i>macgregori</i>	VU	D2	2.3	1996	N/A
15258	SQUAMATA	SCINCIDAE	<i>Oligosoma</i>	<i>microlepis</i>	VU	B1+2bcd	2.3	1996	N/A
15260	SQUAMATA	SCINCIDAE	<i>Oligosoma</i>	<i>otagense</i>	EN	B1ab(iii,v); C2a(ii)	3.1	2010	decreasing
15261	SQUAMATA	SCINCIDAE	<i>Oligosoma</i>	<i>striatum</i>	VU	B1+2bcd	2.3	1996	N/A
15265	SQUAMATA	SCINCIDAE	<i>Oligosoma</i>	<i>waimatense</i>	VU	B1+2bd	2.3	1996	N/A
6013	SQUAMATA	SCINCIDAE	<i>Oligosoma</i>	<i>whitakeri</i>	VU	D1+2	2.3	1996	N/A
20612	RHYNCHOCEPHALIA	SPHENODONTIDAE	<i>Sphenodon</i>	<i>guntheri</i>	VU	D1+2	2.3	1996	N/A

Bird Threatened Species⁸

In New Zealand, 30% of bird species are threatened.

Total number of species	Number of Threatened species (CR+EN+VU)	% threatened	Critically Endangered species (CR)	Endangered species (EN)	Vulnerable species (VU)
226	67	30	6	24	37

IUCN Red List status for globally threatened birds (GTBs)



List of Bird Threatened Species⁹

New Zealand has 6 Critically Endangered (CR) bird species.

Legend

In **red**: Critically Endangered (CR) species

In **blue**: Endangered (EN) species

In **black**: Vulnerable (VU) species

⁸ BirdLife International. (2015) Country profile: New Zealand. <http://www.birdlife.org/datazone/country>. Accessed on 11 April 2016.

⁹ Ibid.

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Species ID	Species	Common Name	Category
8	<i>Apteryx australis</i>	Southern Brown Kiwi	VU
10	<i>Apteryx haastii</i>	Great Spotted Kiwi	VU
422	<i>Hymenolaimus malacorhynchos</i>	Blue Duck	EN
1410	<i>Nestor notabilis</i>	Kea	VU
1412	<i>Nestor meridionalis</i>	New Zealand Kaka	EN
1475	<i>Cyanoramphus unicolor</i>	Antipodes Parakeet	VU
2848	<i>Gallirallus australis</i>	Weka	VU
2875	<i>Lewinia muelleri</i>	Auckland Rail	VU
2929	<i>Porphyrio hochstetteri</i>	South Island Takahē	EN
3001	<i>Coenocorypha pusilla</i>	Chatham Snipe	VU
3096	<i>Haematopus chathamensis</i>	Chatham Oystercatcher	EN
3145	<i>Thinornis novaeseelandiae</i>	Shore Plover	EN
3149	<i>Anarhynchus frontalis</i>	Wrybill	VU
3281	<i>Sternula nereis</i>	Fairy Tern	VU
3289	<i>Chlidonias albostrigatus</i>	Black-fronted Tern	EN
3688	<i>Phalacrocorax campbelli</i>	Campbell Shag	VU
3690	<i>Phalacrocorax chalconotus</i>	Stewart Shag	VU
3691	<i>Phalacrocorax onslowi</i>	Chatham Shag	CR
3692	<i>Phalacrocorax colensoi</i>	Auckland Shag	VU
3693	<i>Phalacrocorax ranfurlyi</i>	Bounty Shag	VU
3700	<i>Phalacrocorax featherstoni</i>	Pitt Shag	EN
3767	<i>Botaurus poiciloptilus</i>	Australasian Bittern	EN
3854	<i>Eudyptes pachyrhynchus</i>	Fiordland Penguin	VU
3855	<i>Eudyptes robustus</i>	Snares Penguin	VU
3856	<i>Eudyptes sclateri</i>	Erect-crested Penguin	EN
3859	<i>Megadyptes antipodes</i>	Yellow-eyed Penguin	EN
3884	<i>Pterodroma cervicalis</i>	White-necked Petrel	VU
3888	<i>Pterodroma cookii</i>	Cook's Petrel	VU
3889	<i>Pterodroma pycrofti</i>	Pycroft's Petrel	VU
3923	<i>Procellaria parkinsoni</i>	Black Petrel	VU
3924	<i>Procellaria westlandica</i>	Westland Petrel	VU
3929	<i>Ardenna bulleri</i>	Buller's Shearwater	VU
3942	<i>Puffinus huttoni</i>	Hutton's Shearwater	EN
3962	<i>Thalassarche salvini</i>	Salvin's Albatross	VU
3963	<i>Thalassarche eremita</i>	Chatham Albatross	VU
3964	<i>Thalassarche chrysostoma</i>	Grey-headed Albatross	EN
3992	<i>Xenicus gilviventris</i>	South Island Wren	VU

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5309	<i>Notiomystis cincta</i>	Stitchbird	VU
5482	<i>Petroica traversi</i>	Black Robin	EN
5627	<i>Mohoua ochrocephala</i>	Yellowhead	EN
6258	<i>Callaeas cinereus</i>	Kokako	EN
9814	<i>Cyanoramphus forbesi</i>	Chatham Parakeet	EN
9819	<i>Anas nesiotis</i>	Campbell Teal	EN
30004	<i>Diomedea antipodensis</i>	Antipodean Albatross	VU
30005	<i>Diomedea sanfordi</i>	Northern Royal Albatross	EN
30007	<i>Thalassarche impavida</i>	Campbell Albatross	VU
453	<i>Anas aucklandica</i>	Auckland Teal	VU
3954	<i>Diomedea epomophora</i>	Southern Royal Albatross	VU
30105	<i>Fregetta maoriana</i>	New Zealand Storm-petrel	CR
3689	<i>Phalacrocorax carunculatus</i>	Rough-faced Shag	VU
3882	<i>Pterodroma axillaris</i>	Chatham Petrel	VU
3904	<i>Pterodroma magentae</i>	Magenta Petrel	CR
30015	<i>Thalassarche carteri</i>	Indian Yellow-nosed Albatross	EN
3952	<i>Diomedea exulans</i>	Wandering Albatross	VU
3922	<i>Procellaria aequinoctialis</i>	White-chinned Petrel	VU
31804	<i>Hemiphaga chathamensis</i>	Chatham Pigeon	VU
1492	<i>Strigops habroptila</i>	Kakapo	CR
31791	<i>Apteryx rowi</i>	Okarito Kiwi	EN
9815	<i>Cyanoramphus malherbi</i>	Malherbe's Parakeet	CR
3103	<i>Himantopus novaezelandiae</i>	Black Stilt	CR
3887	<i>Pterodroma leucoptera</i>	White-winged Petrel	VU
3010	<i>Numenius tahitiensis</i>	Bristle-thighed Curlew	VU
32472	<i>Eudyptes chrysocome</i>	Southern Rockhopper Penguin	VU
3014	<i>Numenius madagascariensis</i>	Far Eastern Curlew	EN
1016875	<i>Apteryx mantelli</i>	Northern Brown Kiwi	EN
3238	<i>Larus bulleri</i>	Black-billed Gull	EN
1017087	<i>Charadrius obscurus</i>	Southern Red-breasted Plover	EN

List of Critically Endangered Endemic Species

New Zealand has:

- 0 Critically Endangered (CR) endemic amphibian species¹⁰
- 0 Critically Endangered (CR) endemic mammal species¹¹
- 0 Critically Endangered (CR) endemic reptile species¹²

¹⁰ IUCN 2015. *The IUCN Red List of Threatened Species. Version 2015.1.* www.iucnredlist.org. As available on 1 June 2015.

¹¹ Ibid.

¹² Ibid.

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- 4 Critically Endangered (CR) endemic plant species¹³
- 6 Critically Endangered (CR) endemic bird species¹⁴

Plants

Taxon ID	Phylum	Class	Species
44393582	TRACHEOPHYTA	LILIOPSIDA	<i>Puccinellia raroflorens</i>
30481	TRACHEOPHYTA	MAGNOLIOPSIDA	<i>Pennantia baylisiana</i>
32309	TRACHEOPHYTA	MAGNOLIOPSIDA	<i>Chordospartium muritai</i>
34295	TRACHEOPHYTA	MAGNOLIOPSIDA	<i>Metrosideros bartlettii</i>

Birds

Species ID	Species	Common Name
3691	<i>Phalacrocorax onslowi</i>	Chatham Shag
30105	<i>Fregetta maoriana</i>	New Zealand Storm-petrel
3904	<i>Pterodroma magentae</i>	Magenta Petrel
1492	<i>Strigops habroptila</i>	Kakapo
9815	<i>Cyanoramphus malherbi</i>	Malherbe's Parakeet
3103	<i>Himantopus novaezelandiae</i>	Black Stilt

Species Protection Statistics (All PAs) *¹⁵

Class	No. species	% protected	No. Globally Threatened (GT)	% GT protected	No. Endemic (E)	% E protected	No. Threatened Endemic (TE)	% TE protected
Aves	291	73.20	74	98.65	83	78.31	43	100.00
Mammalia	54	88.89	9	88.89	4	75.00	4	75.00
Amphibia	7	57.14	6	66.67	4	100.00	4	100.00

¹³ Ibid.

¹⁴ BirdLife International. (2015) Country profile: New Zealand. <http://www.birdlife.org/datazone/country>. Accessed on 11 April 2016.

* A species is counted as “protected” if its mapped range (from IUCN Red List) overlaps to some extent (>0% to 100%) with PA boundaries in the country. This does not mean that this protection is adequate.

¹⁵Dubois, G., Bastin, L., Martinez-Lopez J., Cottam, A., Temperley, H., Bertzky, B., Graziano, M. (2015). The Digital Observatory for Protected Areas (DOPA) Explorer 1.0. EUR 27162 EN. Publications Office of the European Union, Luxembourg, 53 p. http://dopa-explorer.jrc.ec.europa.eu/dopa_explorer/. Accessed on 11 April 2016.

NOTES

ⁱ Threatened Species are species that are designated as Critically Endangered, Endangered or Vulnerable by the IUCN Red List. These criteria are explained here: <http://www.iucnredlist.org/technical-documents/categories-and-criteria>, and the criterion Critically Endangered is explained in details below.

ⁱⁱ IUCN Red List definition of Critically Endangered (CR)

A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E, and it is therefore considered to be facing an extremely high risk of extinction in the wild.

A. Reduction in population size based on any of the following:

1. An observed, estimated, inferred or suspected population size reduction of $\geq 90\%$ over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are clearly reversible AND understood AND ceased, based on (and specifying) any of the following:

(a) direct observation

(b) an index of abundance appropriate to the taxon

(c) a decline in area of occupancy, extent of occurrence and/or quality of habitat

(d) actual or potential levels of exploitation

(e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites.

2. An observed, estimated, inferred or suspected population size reduction of $\geq 80\%$ over the last 10 years or three generations, whichever is the longer, where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.

3. A population size reduction of $\geq 80\%$, projected or suspected to be met within the next 10 years or three generations, whichever is the longer (up to a maximum of 100 years), based on (and specifying) any of (b) to (e) under A1.

4. An observed, estimated, inferred, projected or suspected population size reduction of $\geq 80\%$ over any 10 year or three generation period, whichever is longer (up to a maximum of 100 years in the future), where the time period must include both the past and the future, and where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.

B. Geographic range in the form of either B1 (extent of occurrence) OR B2 (area of occupancy) OR both: 17

1. Extent of occurrence estimated to be less than 100 km², and estimates indicating at least two of a-c:

a. Severely fragmented or known to exist at only a single location.

b. Continuing decline, observed, inferred or projected, in any of the following:

(i) extent of occurrence

(ii) area of occupancy

(iii) area, extent and/or quality of habitat

(iv) number of locations or subpopulations

(v) number of mature individuals.

c. Extreme fluctuations in any of the following:

(i) extent of occurrence

(ii) area of occupancy

(iii) number of locations or subpopulations

(iv) number of mature individuals.

2. Area of occupancy estimated to be less than 10 km², and estimate indicating at least two of a-c:

a. Severely fragmented or known to exist at only a single location.

b. Continuing decline, observed, inferred or projected, in any of the following:

(i) extent of occurrence

(ii) area of occupancy

(iii) area, extent and/or quality of habitat

(iv) number of locations or subpopulations

(v) number of mature individuals.

c. Extreme fluctuations in any of the following:

(i) extent of occurrence

(ii) area of occupancy

(iii) number of locations or subpopulations

(iv) number of mature individuals.

C. Population size estimated to number fewer than 250 mature individuals and either:

1. An estimated continuing decline of at least 25% within three years or one generation, whichever is longer, (up to a maximum of 100 years in the future) OR

2. A continuing decline, observed, projected, or inferred, in numbers of mature individuals AND at least one of the following (a-b): 18

a. Population structure in the form of one of the following: (i) no subpopulation estimated to contain more than 50 mature individuals, OR (ii) at least 90% of mature individuals in one subpopulation.

b. Extreme fluctuations in number of mature individuals.

D. Population size estimated to number fewer than 50 mature individuals.

E. Quantitative analysis showing the probability of extinction in the wild is at least 50% within 10 years or three generations, whichever is the longer (up to a maximum of 100 years).