Ciconia nigra -- (Linnaeus, 1758)

ANIMALIA -- CHORDATA -- AVES -- CICONIIFORMES -- CICONIIDAE

Common names: Black Stork; Cigogne noire

European Red List Assessment

European Red List Status
LC Least Concern, (IUCN version 3.1)

Assessment Information

Year published:	2015
Date assessed:	2015-03-31
Assessor(s):	BirdLife International
Reviewer(s):	Symes, A.
Compiler(s):	Ashpole, J., Burfield, I., Ieronymidou, C., Pople, R., Van den Bossche, W., Wheatley, H. & Wright, L.

Assessment Rationale

European regional assessment: Least Concern (LC) EU27 regional assessment: Least Concern (LC)

At both European and EU27 scales this species has an extremely large range, and hence does not approach the thresholds for Vulnerable under the range size criterion (Extent of Occurrence 10% in ten years or three generations, or with a specified population structure). The population trend appears to be increasing, and hence the species does not approach the thresholds for Vulnerable under the population trend criterion (30% decline over ten years or three generations).

For these reasons the species is evaluated as Least Concern within both Europe and the EU27.

Occurrence

Countries/Territories of Occurrence

Native:

Albania; Armenia; Austria; Azerbaijan; Belarus; Belgium; Bosnia and Herzegovina; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; France; Georgia; Germany; Greece; Hungary; Italy; Latvia; Lithuania; Luxembourg; Macedonia, the former Yugoslav Republic of; Malta; Moldova; Montenegro; Netherlands; Poland; Portugal; Romania; Russian Federation; Serbia; Slovakia; Slovenia; Spain; Sweden; Switzerland; Turkey; Ukraine; Gibraltar (to UK)

Vagrant:

Finland; Ireland, Rep. of; Liechtenstein; Norway; United Kingdom

Population

The European population is estimated at 9,800-13,900 pairs, which equates to 19,500-27,800 mature individuals. The population in the EU27 is estimated at 6,000-7,700 pairs, which equates to 11,900-15,400 mature individuals. For details of national estimates, see <u>Supplementary PDF</u>.

Trend

In Europe and the EU27 the population size is estimated to be increasing. For details of national estimates, see Supplementary PDF.

Habitats and Ecology

Most populations of this species are fully migratory and travel on a narrow front (Elliott et al. 2014) along well-defined routes (Brown et al. 1982, Hancock et al. 1992). Some breeding populations (e.g. in Spain) are also sedentary (Elliott et al. 2014). The species is a solitary nester, the timing of breeding varying between populations but generally coinciding with spring in the Palearctic Region (Elliott et al. 2014). On migration the species may travel singly (Snow and Perrins 1998) or in small groups (Elliott et al. 2014) of up to 100 individuals (Snow and Perrins 1998), and on its wintering grounds it is normally observed singly or in small groups of less than 30 individuals (Brown et al. 1982). The species inhabits old, undisturbed, open forests (Snow and Perrins 1998, Elliott et al. 2014) from sea-level up to mountainous regions (e.g. 2,000–2,500 m in

altitude) (Hancock et al. 1992). It forages in shallow streams, pools, marshes (Elliott et al. 2014), swampy patches (Snow and Perrins 1998), damp meadows (Hancock et al. 1992), flood-plains, pools in dry riverbeds (Hockey et al. 2005) and occasionally grasslands (Elliott et al. 2014) especially where there are stands of reeds or long grass (Brown et al. 1982). It generally avoids large bodies of water and dense forest (Elliott et al. 2014), but non-breeding birds may frequent the estuaries of tidal rivers (Hancock et al. 1992). It is predominantly piscivorous although it may also take amphibians, insects, snails, crabs, small reptiles, mammals and birds. The nest is a large construction of sticks (Elliott et al. 2014) positioned between 4–25 m high (Hancock et al. 1992) in large forest trees (Lohmus and Sellis 2003, Elliott et al. 2014) or on cliffs (Spain) (Elliott et al. 2014). The species shows a preference for nesting in trees that have canopies large enough to hold the nest away from the main trunk (e.g. trees 25 m high, 120 years old and with a diameter at breast height of 66 cm) (Lohmus and Sellis 2003). It nests solitarily, with pairs spread out in the landscape at a distance of no less than one kilometre (even where the species is most numerous) (Hancock et al. 1992). The species may occupy the nests of other bird species and commonly reuses nests in successive years (Elliott et al. 2014).

Habitats & Altitude			
Habitat (leve	el 1 - level 2)	Importance	Occurrence
Wetlands (inland) - Bogs, Marshes, Swan	suitable	breeding	
Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands		suitable	non-breeding
Wetlands (inland) - Permanent Freshwater Marshes/Pools (under ha)		suitable	breeding
Wetlands (inland) - Permanent Freshwater Marshes/Pools (under ha)		suitable	non-breeding
Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)		suitable	breeding
Wetlands (inland) - Permanent Rivers/St	reams/Creeks (includes waterfalls)	suitable	non-breeding
Altitude	max. 2000 m	Occasional altitudinal limits	

Threats

The main threat to this species is habitat degradation (Hancock et al. 1992, Balian et al. 2002, Lohmus and Sellis 2003, Diagana et al. 2006, Elliott et al. 2014). The area of suitable habitat available for breeding is being reduced in Russia and eastern Europe through deforestation (Elliott et al. 2014) (particularly the destruction of large traditional nesting trees) (Hancock et al. 1992, Lohmus and Sellis 2003), the rapid development of industry and farming (Hancock et al. 1992), the building of dams (Diagana et al. 2006) and lake drainage for irrigation and hydroelectric power production (Balian et al. 2002).

The species's wetland wintering habitats in Africa are further threatened by conversion (Elliott et al. 2014), agricultural intensification, desertification and pollution caused by the concentration of pesticides and other chemicals (Diagana et al. 2006, Elliott et al. 2014). The species is also occasionally killed by collisions with power-lines and overhead cables (Hockey et al. 2005), and hunting in southern Europe (especially during migration) has caused population declines (Hancock et al. 1992).

Threats & Impa	<u>cts</u>				
Threat (level 1)	Threat (level 2)	Impact and Stresses			
Agriculture & aquaculture	Agro-industry farming	Timing	Scope	Severity	Impact
		Ongoing	Majority (50-90%)	Negligible declines	Low Impact
		Stresses			
		Ecosystem degradation			
Agriculture & aquaculture	Wood & pulp plantations (scale unknown/ unrecorded)	Timing	Scope	Severity	Impact
		Ongoing	Majority (50-90%)	Negligible declines	Low Impact
		Stresses			
		Ecosystem conversion; Ecosystem degradation; Species disturbance			
Biological resource	Hunting & trapping terrestrial animals (persecution/ control)	Timing	Scope	Severity	Impact
use		Past, Likely to Return	Minority (<50%)	Slow, Significant Declines	Past Impact
		Stresses			
		Species mortality			
	Logging & wood harvesting (unintentional effects: (large scale) [harvest])	Timing	Scope	Severity	Impact
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact
		Stresses			
		Ecosystem conversion; Ecosystem degradation; Species disturbance			

Threat (level 1)	Threat (level 2)	Impact and Stresses				
Climate change &	Droughts	Timing	Scope	Severity	Impact	
severe weather		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact	
		Stresses				
		Ecosystem degradation				
Energy production	Renewable energy	Timing	Scope	Severity	Impact	
& mining		Ongoing	Minority (<50%)	Unknown	Unknown	
		Stresses				
		Ecosystem degradation; Species mortality; Species disturbance				
Human intrusions &	Recreational	Timing	Scope	Severity	Impact	
disturbance	activities	Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact	
		Stresses				
		Species disturban	ce			
Natural system	Abstraction of	Timing	Scope	Severity	Impact	
modifications	surface water (unknown use)	Ongoing	Minority (<50%)	Negligible declines	Low Impact	
	(dikilowii use)	Stresses				
		Ecosystem conversion; Ecosystem degradation				
Natural system	Dams (size unknown)	Timing	Scope	Severity	Impact	
modifications		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact	
		Stresses				
		Ecosystem degradation				
Natural system	Other ecosystem	Timing	Scope	Severity	Impact	
modifications	modifications	Ongoing	Minority (<50%)	Unknown	Unknown	
		Stresses				
		Ecosystem degrad	lation			
Pollution	Domestic & urban waste water (type unknown/ unrecorded)	Timing	Scope	Severity	Impact	
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact	
		Stresses				
		Ecosystem degradation				
Transportation &	Roads & railroads	Timing	Scope	Severity	Impact	
service corridors		Ongoing	Minority (<50%)	Negligible declines	Low Impact	
			St	resses		
		Ecosystem conversion; Ecosystem degradation				
Transportation & service corridors	Utility & service lines	Timing	Scope	Severity	Impact	
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact	
		Stresses				
		Species mortality				

Conservation

Conservation Actions Underway

The species is listed on Annex I of the EU Birds Directive, Annex II of the Bern Convention, Annex II of the Convention on Migratory Species, under which it is covered by the African-Eurasian Waterbird Agreement (AEWA) and on Annex II of the Cites Convention. Wetlands International has published a Conservation Action Plan for the species in Africa, focusing on the wintering conditions of the birds breeding in Europe (Diagana et al. 2006).

Conservation Actions Proposed

A study in Estonia found that the retention of large older trees during forest management is important in providing nesting sites for the species (Lohmus and Sellis 2003). Conservation measures aimed at increasing the species's breeding success and population density should cover large territories of predominantly deciduous woodland and should focus on managing the river quality as far as 20 km away from nesting sites, protecting and managing feeding habitats, and improving food resources by establishing shallow artificial

pools in grasslands or along rivers (Jiguet and Villarubias 2004). Other measures should: Monitor breeding, migrating, wintering numbers, age composition and ecological changes at key sites; Sustainably manage rivers and small streams; Establish non-intrusion zones around nest locations; Protect nesting trees (also in plantations) and rocks; Bury power-lines or replace with more visible cable; Prevent poaching and overexploitation of fish.

Bibliography

Balian, L. V., Ghasabian, M. G., Adamian, M. S. and Klem Jr, D. 2002. Changes in the waterbird community of the Lake Sevan-Lake Gilli area, Republic of Armenia: a case for restoration. *Biological Conservation* 106(2): 157-163.

Brown, L.H., Urban, E.K. and Newman, K. 1982. *The birds of Africa vol I*. Academic Press, London. Elliott, A., Christie, D.A., Garcia, E.F.J. and Boesman, P. 2014. Black Stork (*Ciconia nigra*). In: del Hoyo, J., Elliott, A., Sargatal, J., Christie, D.A. and de Juana, E. (eds.) 2014. *Handbook of the Birds of the World Alive*. Lynx Edicions, Barcelona. (retrieved from http://www.hbw.com/node/52739 on 14 April 2015).

Diagana, C.H., Dodman, T. and Sylla, S I. 2006. Conservation action plans for the Black Crowned Crane *Balearica pavonina* and Black Stork *Ciconia nigra* in Africa. In: Boere, G., Galbraith, C. and Stroud, D. (ed.), *Waterbirds around the world*, pp. 608-612. The Stationary Office, Edinburgh, UK.

Hancock, J.A., Kushlan, J.A. and Kahl, M.P. 1992. *Storks, ibises and spoonbills of the world*. Academic Press, London.

Hockey, P.A.R., Dean, W.R.J., Ryan, P.G. 2005. *Roberts birds of southern Africa*. Trustees of the John Voelcker Bird Book Fund, Cape Town, South Africa.

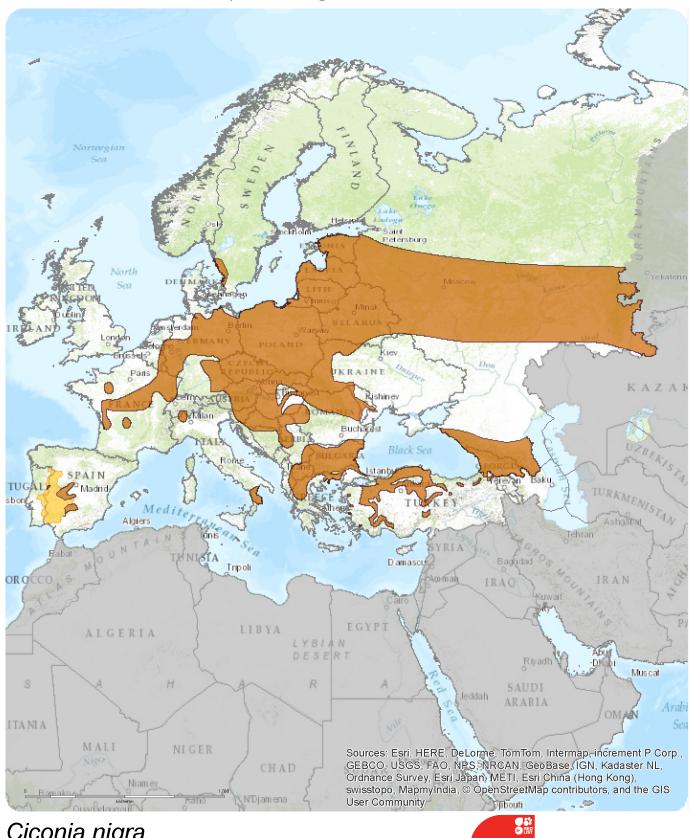
Jiguet, F. and Villarubias, S. 2004. Satellite tracking of breeding black storks *Ciconia nigra*: new incomes for spatial conservation issues. *Biological Conservation* 120: 153-160.

Lohmus, A. and Sellis, U. 2003. Nest trees - a limiting factor for the Black Stork *Ciconia nigra* populations in Estonia. *Aves Liege* 40(1-4): 84-91.

Snow, D.W. and Perrins, C.M. 1998. *The Birds of the Western Palearctic vol. 1: Non-Passerines*. Oxford University Press, Oxford.

Map (see overleaf)

European Regional Assessment



Ciconia nigra

Range

Extant (breeding)

Extant (resident)

Citation: BirdLife International (2015) European Red List of Birds



