Ciconia ciconia -- (Linnaeus, 1758)

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

Common names: White Stork; Cigogne blanche

European Red List Assessment

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

Assessment Information

Year published:	2015
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Assessor(s):	BirdLife International
Reviewer(s):	Symes, A.
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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; Liechtenstein; 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)

Origin Uncertain:

Canary Is. (to ES)

Vagrant:

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

Population

The European population is estimated at 224,000-247,000 pairs, which equates to 447,000-495,000 mature individuals. The population in the EU27 is estimated at 154,000-164,000 pairs, which equates to 308,000-327,000 mature individuals. For details of national estimates, see Supplementary PDF.

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

This is a large charismatic species with close associations to human culture, and is a flagship species for conservation. This species is a Palearctic migrant (Elliott et al. 2014) that travels with the assistance of thermal updrafts, the occurrence of which restricts the migratory routes the species can take (Hancock et al. 1992). It breeds from February to April in the Palearctic (Elliott et al. 2014). It nests in loose colonies of up to 30 pairs (Hancock et al. 1992, Elliott et al. 2014) or solitarily (Elliott et al. 2014). The main departure from

the European breeding grounds occurs in August (Hancock et al. 1992) with the species travelling in large flocks (Brown et al. 1982, Hancock et al. 1992), generally arriving in Africa by early October (Brown et al. 1982). The species inhabits open areas, shallow marshes, lakesides (Hancock et al. 1992, Elliott et al. 2014), lagoons (Elliott et al. 2014), flood-plains, rice-fields and arable land (Snow and Perrins 1998) especially where there are scattered trees for roosting (Elliott et al. 2014). It generally avoids regions with persistent cold, wet weather or large tracts of tall, dense vegetation such as reedbeds or forests (Hancock et al. 1992, Elliott et al. 2014). During the winter the species shows a preference for drier habitats (Hancock et al. 1992) such as grasslands, steppe and cultivated fields (Elliott et al. 2014), often gathering near lakes, ponds (Hancock et al. 1992), pools, slow-flowing streams, ditches (Elliott et al. 2014) or rivers (Hancock et al. 1992). The species is carnivorous and has a varied and opportunistic diet. It takes small mammals (Elliott et al. 2014) (e.g., voles, water voles, mice, shrews, young rats (Hancock et al. 1992)), large insects (e.g. beetles, grasshoppers, crickets and locusts), adult and juvenile amphibians, snakes, lizards, earthworms, fish (Elliott et al. 2014), eggs and nestlings of ground-nesting birds, molluscs and crustaceans (Hancock et al. 1992). The nest is constructed of sticks (Elliott et al. 2014) and is commonly positioned up to 30 m above the ground (Brown et al. 1982) in trees or on the roofs of buildings, as well as on pylons, telegraph poles, stacks of straw and other anthropogenic sites (including specially erected nesting structures), cliffs and occasionally among rushes on the ground (Elliott et al. 2014). The species nests solitarily or in loose colonies, often using traditional nesting sites (there are records of individual nests being used every year for 100 years) (Hancock et al. 1992, Elliott et al. 2014). Nesting sites are usually situated near foraging areas, but may be up to 2–3 km away (Snow and Perrins 1998).

Habitats & Altitude

Habitat (level 1 - level 2)		Importance	Occurrence
Artificial/Terrestrial - Arable Land		suitable	resident
Artificial/Terrestrial - Pastureland		major	non-breeding
Grassland - Temperate		major	resident
Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands		suitable	breeding
Wetlands (inland) - Permanent Freshwater Lakes (over ha)		suitable	resident
Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)		suitable	non-breeding
Altitude	max. 3500 m	Occasional altitudinal limits	

Threats

The species is threatened by habitat alteration including the drainage of wet meadows (Goriup and Schulz 1990, Elliott et al. 2014), prevention of floods on flood-plains (by dams, embankments, pumping stations and river canalisation schemes) (Goriup and Schulz 1990), conversion of foraging areas (Elliott et al. 2014), development, industrialisation and intensification of agriculture (Hancock et al. 1992) (e.g. mechanised ploughing of rough pastures to sow fertilised crops or swards of more productive grass varieties) (Goriup and Schulz 1990). It is also threatened by a shortage of nesting sites in some areas (Elliott et al. 2014) as, for example, the roofs of new rural buildings do not support nests and nest structures on pylons are frequently destroyed during maintenance work (Goriup and Schulz 1990). The species may also suffer as a result of the excessive use of pesticides (Elliott et al. 2014, Hockey et al. 2005) and through eating poisoned baits put out to catch large carnivores (Elliott et al. 2014). Another serious threat is collision with and electrocution from overhead powerlines (Bairlein 1991, Elliott et al. 2014), especially whilst on migration in Europe (Hancock et al. 1992). The species is hunted for food and sport (Elliott et al. 2014), mainly on migration (Hancock et al. 1992) and in its winter quarters (Goriup and Schulz 1990).

Threats & Impacts

Threat (level 1)	Threat (level 2)	Impact and Stresses			
Agriculture & aquaculture	Agro-industry farming	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Majority (50-90%)	Slow, Significant Declines	Medium Impact
		Stresses			
		Ecosystem degradation			
Agriculture & aquaculture	Annual & perennial non-timber crops (scale unknown/ unrecorded)	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact
		Stresses			
		Ecosystem degradation			

Threats & Impacts

Threat (level 1)	Threat (level 2)	Impact and Stresses			
Agriculture & aquaculture	Livestock farming & ranching (scale	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact
		Stresses			
		Ecosystem degradation			
Biological resource use	Hunting & trapping terrestrial animals (intentional use - species is the target)	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Negligible declines	Low Impact
		Stresses			
		Species mortality			
Climate change & severe weather	Droughts	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact
		Stresses			
		Ecosystem degradation			
Human intrusions & disturbance	Work & other activities	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact
		Stresses			
		Species disturbance			
Natural system modifications	Abstraction of surface water (unknown use)	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact
		Stresses			
		Ecosystem degradation			
Natural system modifications	Other ecosystem modifications	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact
		Stresses			
		Ecosystem degradation			
Pollution	Herbicides and pesticides	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact
		Stresses			
		Ecosystem degradation			
Residential & commercial development	Housing & urban areas	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Negligible declines	Low Impact
		Stresses			
		Ecosystem conversion			
Transportation & service corridors	Utility & service lines	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Majority (50-90%)	Slow, Significant Declines	Medium Impact
		Stresses			
		Species mortality			

Conservation

Conservation Actions Underway

This species is listed on Annex I of the EU Birds Directive, Annex II of the Bern Convention and Annex II of the Convention on Migratory Species, under which it is covered by the African-Eurasian Waterbird Agreement (AEWA). The eastern and western populations are currently listed in columns C (category 1) and A (category 3b) in the AEWA Action Plan, respectively. The international population of the species is censused and monitored every 10 years (Schulz 1999).

Conservation Actions Proposed

Intensively grazed (>1 cow per hectare) unfertilised grassland was found to attract a higher abundance of this species in Hungary (Baldi et al. 2005), and traditional livestock-farming practices such as creating herb-rich meadows for stock grazing and hay production are thought to be beneficial (Goriup and Schulz 1990). A

model used to study the impact of different land use patterns on the species found that sequential (asynchronous) mowing of grasslands may increase the food supply for nestlings, thereby increasing reproductive success (as sequential mowing generates a small number of high-quality foraging patches throughout the breeding season) (Johst et al. 2001). A report by the International Council for Bird Preservation (ICBP) suggests that habitat management for the species should include the periodic flooding of meadows, the creation of a mosaic of native grasslands and meadows, and the retention or creation of ditches, ponds and lakes (Goriup and Schulz 1990). The report also advises management strategies in relation to electricity pylons (e.g. burying or marking aerial cables and preventing disturbance to nests during maintenance) to reduce the threats of electrocution and collision (Goriup and Schulz 1990). Due to the species's habit of defecating on its legs to regulate its body temperature in hot climates it is inadvisable to fit individuals with leg-rings for tracking purposes (dry uric acid builds-up on the legs and hardens around leg-rings, tightening them and leading to injuries) (Goriup and Schulz 1990). Other methods of monitoring movements such as satellite telemetry or patagial wing-tags are therefore advised (Goriup and Schulz 1990). Other measures should: Monitor breeding, migrating, wintering numbers, age composition and ecological changes at key sites and habitats; Sustainably manage river valleys and wet grasslands; Abandonment of pastoral grassland, afforestation of farmland and drainage of wet meadows and inland wetlands in key breeding areas should be stopped; Bury power-lines or replace with more visible cables.

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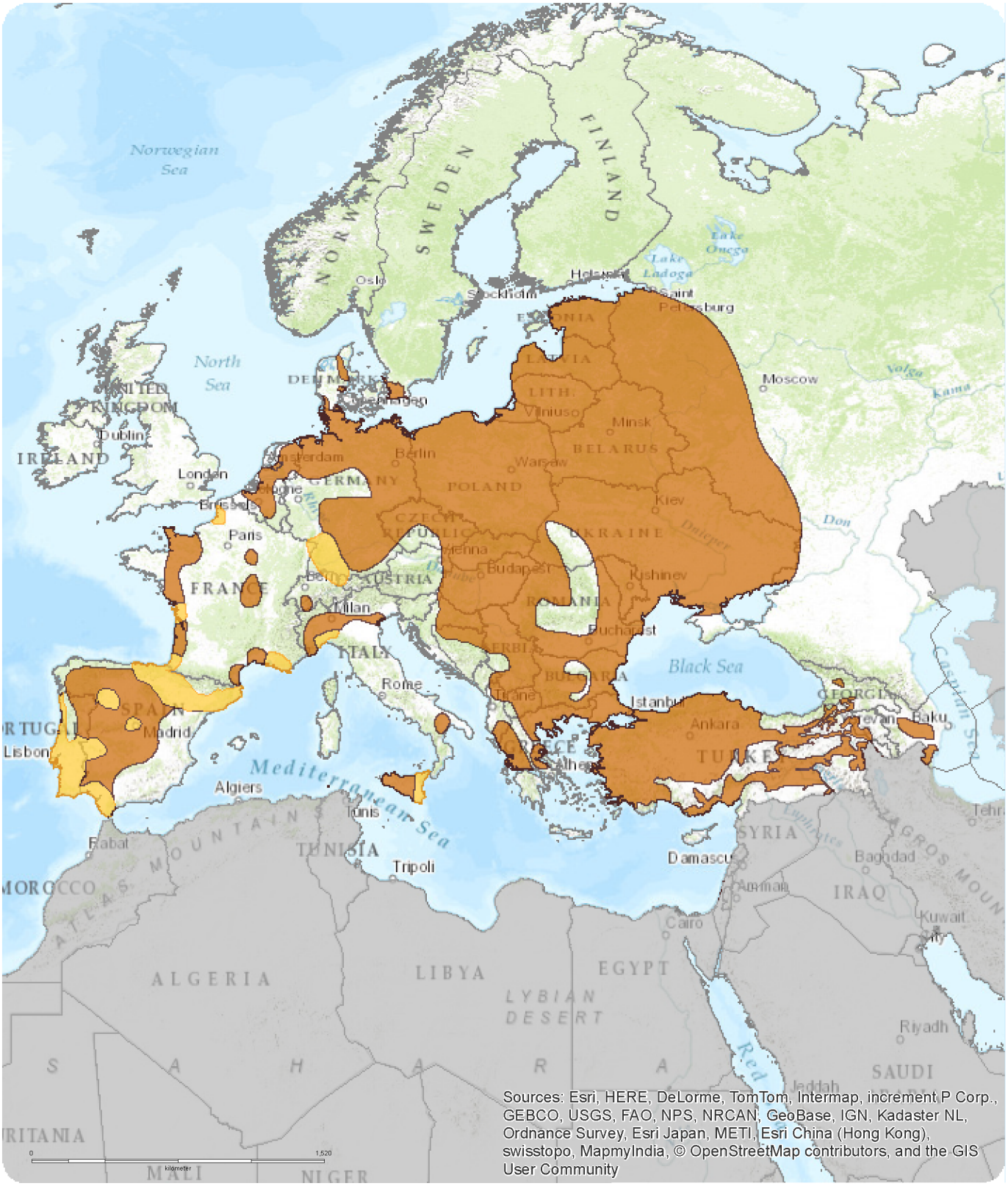
Map (see overleaf)



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Ciconia ciconia

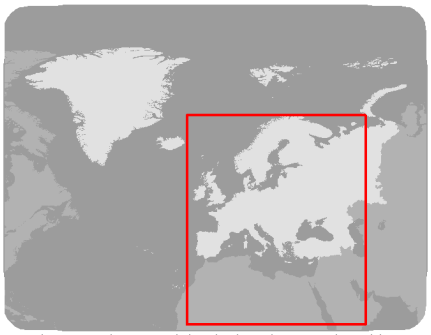
NE | DD | LC LEAST CONCERN | NT | VU | EN | CR | EW | EX

Range

- Extant (breeding)
- Extant (resident)

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

Map created 05/12/2015



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