GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Corvus splendens***

Corvus splendens 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Aves	Passeriformes	Corvidae

Common name

hint kargasi (Turkish), huiskraai (Dutch), huskrage (Danish), Kunguru Bara-Hindi (Swahili), domaca vrana (Slovenian), wrona orientalna (Polish), gralha-indiana (Portuguese), Indian crow (English, Asia), intianvaris (Finnish), cuervo casero (Spanish), cornacchia grigia indiana (Italian), grey-necked crow (English, Asia), town crow (English, Asia), Ceylon crow (English, Asia), gagak rumah (Malay), corbeau familier (French), Glanzkrähe (German, Germany, Austria), huskråka (Swedish), huskråke (Norwegian), préachán binne (Gaelic, Irish), vrána domácí (Czech), vrana lesklá (Slovak), corneja India (Spanish), Indian house-crow (English), Colombo crow (English), iegarasu (Japanese), huiskraai (Afrikaans), corneille de l'Inde (French), Ie-garasu (Japanese), Indijine varna (Lithuanian), corvo delle case (Italian), nalla kakka (Hindi), maniyan kakai (Hindi), vrána lesklá (Czech), õuevares (Estonian), bæjakráka (Icelandic), Hauskrähe (German)

Synonym

Similar species

Summary

The house crow (*Corvus splendens*) has established itself in at least 25 countries. It proliferates in human settlements and disturbed habitats and is especially suited to coastal settlements. It can even penetrate harsh desert environments once man has become established there. The house crow causes problems across a range of areas, including crop and livestock sustainability and poses a risk to native avifauna. It also carries a range of human pathogens but a link with human disease is yet to be established.

[view this species on IUCN Red List]

Species Description

The house crow is a slender bird with a long neck and relatively large bill. The head-body length is 40cm and it weighs approximately 245 to 370 grams. The house crow is glossy black except for a well defined smoky-grey \"collar\", from hindcrown to mantle and breast, the shade of which varies among the five subspecies. Sexes are alike, with males being slightly larger (Rasmussen and Anderton 2005).

The five subspecies of *Corvus splendens* are: *C. splendens splendens*, *C. splendens zugmayeri*, *C. splendens protegatus*, *C. splendens maledivicus* a nd *C. splendens insolens* (Avibase 2003).

Notes

In their native range they (*Corvus splendens*) are kept in check by other Corvids as competitors, as well as birds of prey, snakes and monkeys as predators. The birds are effective defenders of their nests against feral animals (cats) and also native predators. In its introduced range, no direct persecution by predatory species has been observed.

Lifecycle Stages
House crows are highly social, staying in a locality for perhaps their whole life. Movement into new areas is often as a result of major disturbances (e.g. attempted unorganised control) on nest or roost sites, however, adult birds regulary travel up to 20 km per day to known feeding areas.

Uses
In the late 1800s, the house crow was introduced to some locations for the purpose of garbage elimination and clean up services or to control agricultural pests. It was also thought to control rodent pests around houses.

Habitat Description
This species presents great ecological flexibility, as well as an obligate association with human presence, to the extent that no populations are known to live independently of man (Nyari Ryall and Peterson 2006). As such it is associated with human settlements, disturbed areas, and especially coastal settlements (Rasmussen and Anderton 2005). Invaded areas are mainly urban or semiurban, where house crows benefit from improper human food and refuse handling: commercial areas, public housing areas and urban parks are associated with higher abundance (Lim *et al*. 2003); clearly, this human association broadens the ecological potential of the species into areas that might not otherwise be habitable (Nyari Ryall and Peterson 2006). The house crow has successfully invaded tropical and subtropical regions well beyond its native range, reaching pest proportions in many areas (Brook *et al*. 2003). The small Hoek van Holland population and establishment of a satellite colony of house crows at den Haag in the Netherlands are the first cases of the species breeding in a temperate climatic region, showing its ability to survive winters with temperatures as low as -8°C and its ecological plasticity (Nyari Ryall and Peterson 2006). It is reported at altitudes of up to 2100 metres in its native range (Rasmussen and Anderton 2005). Finally, these distributional potential of the house crow may be in the process of shifting, given the current global climate shift, which could broaden the species' distributional potential at the poleward limits (Nyari Ryall and Peterson 2006).

Reproduction
In its native range house crow nesting is mainly between April to June, (reports from India are April - August). In its introduced range in East Africa (Kenya, Tanzania) breeding occurs mainly between September - January. Nests are located 4m or higher up in trees and dense foliage is preferred. Communal nesting sites are not usual but it appears the house crow is adaptable (depending on locations and conditions). Clutch size: 4 - 5 eggs pale blue-green, speckled and streaked with brown. Both sexes share incubation and nest feeding. Two clutches per year are reported to be possible. In thier native range house crows are under severe pressure by the Indian koel (*Eudynamys scolopacea*), a brood parasite specialised in parasitising house crow nests.

Nutrition
The house crow is an omnivore, feeding on fruits, birds, mammals, reptiles and garbage. This scavanging bird can be found in cities feeding on human food remains and drinking freshwater from swimming pools and artificial ponds. In fact house crows are closely tied to human habitation and refuse seems to form an important part of their diet (Ali and Ripley 1972, Goodwin 1976, Feare and Mungroo 1989, in Feare and Mungroo 1990).

General Impacts
Introduced populations of house crows often present major problems to humans and native wildlife (Feare and Mungroo 1990). In addition to the ecological damage, the house crow also inflicted economic damage by predating chicks and eggs (making free-ranging poultry impossible) and eating crops such as maize (*Zea mays*) and sorghum (*Sorghum vulgare*) (Archer 2001, in Lim *et al*. 2003). The house crow is a nuisance to people and presents a real threat to the tourist amenities and industry in some regions. *C. splendens* is an intestinal carrier of at least eight human enteric diseases (Ash 1984a, in Ryall 1992). 15 % of crows carried serotypes of *Salmonella*, 8 % *Plesiomonas*, 4 % enteropathic *Escherichia coli*, 3 % *Shigella* and 3 % *Aeromonas hydrophila*. Please see detailed impacts for more details on the impacts of the house crow.

Management Info
The transfer of house crows into new countries is mainly ship-assisted. Their proliferation in East Africa may have been supported by some religious groups which consider the crow to be sacred. The house crow is likely to be highly resilient to human attempts at eradication due to its intelligence (eg: propensity to switch roosts when threatened), competitive ability, opportunistic feeding habits, and high innate reproductive capacity. A multifaceted approach involving substantial culling effort, coupled with a strategy of deliberate nest destruction and limiting food supply and suitable nesting sites is most likely to bring success (Soh *et al*. 2002, in Brook *et al*. 2003).

In several parts of their range house crows have reached pest status and attempts have been made to reduce their numbers. In Malaysia trapping and shooting are the main strategies employed (P. Green in litt., in Ryall 1992), in Aden, Yemen, and the Maldives various poisons have been used (Monocrotophos 60, alpa-chloralose, Fenthion and Starlicide, Ash 1984a b, in Ryall 1992), while in Mombasa, Kenya, a combined system of trapping, poisoning and destruction of eggs and chicks is meeting with some success (Ryall and Reid 1986, in Ryall 1992). According to Pakenham (1979, in Ryall 1992), attempts at control over many decades, including a bounty system, have failed in Zanzibar and *C. splendens* is still numerous there. However, in Australia payment of rewards for reports of birds, followed by shooting, has successfully prevented the establishment of crows arriving on Indian cargo vessels (Frith 1976, in Ryall 1992). Ryall (1992) states that this species proliferates mainly where a lack of resources or organisation results in the accumulation of human refuse, which provides a plentiful food supply. Control of this problem undoubtedly has the greatest control effect on house crow numbers.

Preventative measures: Avoidance of transport of birds by ship to ports and cities outside its current area. Establishment of regular control inspections at vulnerable points of entrance and relevant locations in cities and developments would be useful, as would be networking with neighbouring communities and countries to monitor regional trends and patterns. Other measures include keeping city environments clean (especially garbage eliminiation) and modification of micro habitat (e.g. by selection of species of tree used for planting).

Physical: Destruction of nests, eggs and nestlings in breeding areas is not often employed; shooting or trapping is of very limited success as the crows are very social and highly sensitive to direct persecution. Bounty systems have had little significant impact on the control of the species as long term income rather then eradication has been the main motivation. \r\n

Chemical: Poisoning of birds with various avicides has given good results when pre-baiting was undertaken and in conjunction with sanitary improvments. Howevern, uncontrolled poisoning operations may effect non-target wildlife, the environment and human resources (e.g. water). The detetction and elimination of any survivors (often widely dispersed) is labour intensive and costly but crucial to achieve long lasting results.

Pathway
The spread of the house crow has resulted from both inadvertent introductions associated with increased global sea traffic and trade and deliberate introductions (Long 1981, in Brook *et al*. 2003). For example the house crow was transported to Israel via ships going along the Red Sea and to the Gulf of Eilat (it is not clear whether these translocations were intentional) (Roll Dayan and Simberloff 2007).From its natural range, the house crow has been deliberately introduced to new areas as an aid to cleaning refuse from towns (Long 1981, Ryall and Reid 1987, in Feare and Mungroo 1990).

Principal source: Rasmussen, P C and Anderton, J C 2005. Birds of South Asia: The Ripley Guide. Vol 2. Lynx Edicions
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ALIEN RANGE

[1] AUSTRALIA
[1] BARBADOS
[4] DJIBOUTI
[1] ERITREA
[2] HONG KONG
[1] IRELAND
[1] JAPAN
[2] KENYA
[1] MAURITIUS
[4] MOZAMBIQUE
[1] OMAN
[1] REUNION
[7] SEYCHELLES
[2] SOMALIA
[1] SPAIN
[5] TANZANIA, UNITED REPUBLIC OF
[1] UNITED ARAB EMIRATES
[2] UNITED STATES
[1] BAHRAIN
[1] DENMARK
[2] EGYPT
[1] FRANCE
[6] INDONESIA
[1] ISRAEL
[2] JORDAN
[3] MALAYSIA
[1] MOROCCO
[1] NETHERLANDS
[1] QATAR
[1] SAUDI ARABIA
[1] SINGAPORE
[1] SOUTH AFRICA
[1] TAIWAN
[2] THAILAND
[1] UNITED KINGDOM
[3] YEMEN

Red List assessed species 21: EN = 1; VU = 3; LC = 17;

Bubulcus ibis **LC**
Cichladusa guttata **LC**
Cypsiurus parvus **LC**
Falco punctatus **VU**
Hieraaetus wahlbergi **LC**
Milvus migrans **LC**
Otus pembaensis **VU**
Pycnonotus barbatus **LC**
Sterna bengalensis **LC**
Sterna repressa **LC**
Zosterops mauritianus **LC**
Ceryle rudis **LC**
Corvus albus **LC**
Dryoscopus cubla **LC**
Haliaeetus vocifer **LC**
Larus hemprichii **LC**
Nesoenas mayeri **EN**
Passer griseus **LC**
Sterna anaethetus **LC**
Sterna bergii **LC**
Treron pembaensis **VU**

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