**Passer domesticus**

**System:** Terrestrial

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<th>Kingdom</th>
<th>Phylum</th>
<th>Class</th>
<th>Order</th>
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<td>Aves</td>
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**Common name**
gorrion casero (Spanish), town sparrow (English), Europese huismuis (English), house sparrow (English), Gorrion domestico (English, Dominican Republic), moineau domestique (French), house sparrow (English), English sparrow (English)

**Synonym**

**Similar species**
Spiza americana, Passer montanus, Passer hispaniolensis

**Summary**
Passer domesticus (the house sparrow) is a small bird, native to Eurasia and northern Africa, that was intentionally introduced to the Americas. Passer domesticus are non-migratory birds that are often closely associated with human populations and are found in highest abundance in agricultural, suburban and urban areas. They tend to avoid woodlands, forests, grasslands and deserts. Particularly high densities of Passer domesticus were found where urban settlements meet agricultural areas. They may evict native birds from their nests and out-compete them for trophic resources. Early in its invasion of North America, Passer domesticus began attacking ripening grains on farmland and was considered a serious agricultural pest. Recent surveys indicate populations are declining.

**Species Description**
The male house sparrow (*Passer domesticus*) has a brown back with black streaks. The top of the crown is grey, but the sides of the crown and nape are chestnut red. The chin, throat and upper breast are black and the cheeks are white. Females and juveniles are less colourful. They have a grey-brown crown and a light brown or buff eye stripe. The throat, breast and belly are greyish-brown and unstreaked (Cornell Lab of Ornithology, 2007).

**Notes**
North American survey data indicates that the house sparrow (*Passer domesticus*) populations are declining, particularly in maritime regions and in the eastern and central United States. Changes in agricultural practices, in particular the shift to monoculture crop plantings, have been suggested as the cause. In the UK, population decline seems to be related to reduced winter survival (Hole et al. 2002).
Uses
The house sparrow (Passer domesticus) has been commended for feeding on insect species considered pests, such as moths, cabbage worms, and cotton caterpillars (Burleigh 1958, Sprunt and Chamberlain 1970, in Aguirre and Poss, 2000).

Habitat Description
House sparrows (Passer domesticus) may evict native birds from their nests and out-compete them for trophic resources. For the most part, *P. domesticus* is always found around man-made structures and lives around cities, towns and farms. It is non-migratory. Along the Gulf coast of North America it is found in salt marsh scrub in disturbed areas (Toups and Jackson 1987, in Aguirre and Poss, 2000). Foraging habitat includes fields and agricultural areas (Aguirre and Poss, 2000).

Reproduction
House sparrow (Passer domesticus) nests are built from dried vegetation, feathers, string and paper. Eggs are laid at any time in the nesting period. One to eight eggs can be present in a clutch, with the possibility of four clutches per nesting season. Incubation begins after all the eggs have been laid. Both males and females incubate the eggs for short periods of a few minutes each. Incubation lasts for 10 to 14 days.

Nutrition
House sparrow (Passer domesticus) diet consists mostly of weed and grass seeds, grains and insects. Where available, it also feeds on cultivated grains, fruits and vegetables. Although it forages mostly on the ground in open areas, *P. domesticus* will perch on weed stalks to take seeds and search tree barks for insects. In urban areas, garbage constitutes a significant part of the birds diet and the consumption of grains by urban birds is less significant than in rural areas (D. Summers-Smith, 1963).

General Impacts
Despite their small size, house sparrows (Passer domesticus) are quite aggressive. House sparrows are known for displacing native species through competition by out-competing them for trophic resources. In rural areas they may evict native birds from their nests. Some species reported as being driven away by *P. domesticus* include the bluebird and the Carolina wren, as well as a variety of woodpeckers and martins.
Early in its invasion of North America, *P. domesticus* began eating ripening grains, such as wheat, oats, corn, barley and sorghum, and was considered a serious agricultural pest. Peas, turnips, cabbage and nearly all young vegetables are also attacked, as well as apples, cherries, grapes, peaches, plums, pears, strawberries and raspberries. Additionally, *P. domesticus* are a pest on poultry farms where they can consume large quantities of chicken feed.
Management Info

Preventative measures: The Bureau of Rural Sciences, Australia, recently developed a risk assessment model (Bomford, 2003) which has been endorsed by the National Vertebrate Pests Committee and may be used as the basis for future exotic species import applications. To assign an exotic species to a threat category, three risk scores are calculated: the risk that (1) an escaped or released individual would harm people, (2) escaped or released individuals would establish a wild free-living population (3) the species would be a pest if a wild population did establish. These three risk scores are then unused to assign the exotic species to one of four threat categories: extreme, serious, moderate or low. *Passer domesticus* has been assigned an *Extreme* threat category for Australia. These animals should not be allowed to enter, nor be kept in any State or Territory. (Special consideration may be given to scientific institutions on a case by case basis.) Any species that has not been assessed previously should be considered to be in the Extreme Threat Category and should be treated accordingly, until a risk assessment is conducted.

Physical: According to Glacking (2000), there are several ways to control *P. domesticus* and prevent sparrow problems. One is habitat modification. Roosting and nesting sites can be reduced by blocking entrances larger than 2cm. Buildings can be designed or altered to eliminate resting places. In some areas, building codes are modified and architectural committees review plans to reduce nesting sites.

Food sources can be reduced by removing edible human refuse, protecting small crops with bird netting and practicing clean livestock feeding techniques. Feed also needs to be covered to protect it from bird droppings. Bird-resistant varieties of plants can be planted.

More direct methods of control include shooting, trapping, poisoning and repelling. House sparrows can be shot with air guns and small arms containing BB's and dust shot. Trap types include funnel, automatic, triggered and mist nets. Trapping is generally difficult, as sparrows quickly learn to avoid traps, nets, etc. (Summers-Smith, 1963). *P. domesticus* can be repelled with noise, such as fireworks or alarms. Bird gules and Nixalite (trademark for "porcupine wire") annoy the sparrows. They can also be scared away with scarecrows and motorised hawks. Destroying nests can be another method of reducing *P. domesticus* populations.

Chemical: The standard poison used is Avitrol (trademark for 4-Aminopyridine). It is most effective in winter, when food is scarce and bait is readily accepted. Grain is typically used, however, it is important to be aware of any local poison control laws before proceeding. Naphthalene is an olfactory repellent.

Pathway

The house sparrows (*Passer domesticus*) association with human beings has been in large part responsible for its successful invasion of North America (Aguirre and Poss, 2000).

Principal source: Aguirre and Poss, 2000. *Passer domesticus*

Compiler: National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)

Updates with support from the Overseas Territories Environmental Programme (OTEP) project XOT603, a joint project with the Cayman Islands Government - Department of Environment
FULL ACCOUNT FOR: *Passer domesticus*

**Review:** Dr. Andras Liker Department of Zoology, University of Veszprém, Veszprém Hungary.

**Publication date:** 2010-10-04

**ALIEN RANGE**

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**Red List assessed species 2: CR = 1; EN = 1;**

- Neophema chrysogaster **CR**
- Tachycineta cyaneoviridis **EN**

**BIBLIOGRAPHY**

23 references found for *Passer domesticus*

**Management information**

  

- **Clergeau, Phillipe; Levesque, Anthony and Lorvelec, Olivier., 2004.** The precautionary principle and biological invasion: the case of the house Sparrow on Lesser Antilles. International Journal of pest management 50(2) 83-89
  
  **Summary:** This paper summarizes the different steps of a decision-making protocol applied to the recent establishment of an exotic species, the House Sparrow *Passer domesticus*, in the Lesser Antilles.

  
  **Summary:** Available from: [http://sisbib.unmsm.edu.pe/BVrevistas/biologia/v17n2/pdf/a07v17n2.pdf](http://sisbib.unmsm.edu.pe/BVrevistas/biologia/v17n2/pdf/a07v17n2.pdf) [Accessed 23 February 2011]

- **Glacking, J. 2000.** *English or House Sparrow. Lasting Forests.*
  
  **Summary:** A report on management of *P. domesticus*. Available from: [http://fwie.fw.vt.edu/rhgiles/speciesssm/engspar.htm](http://fwie.fw.vt.edu/rhgiles/speciesssm/engspar.htm) [Accessed 22 July 2003]

- **Murray, C. and C. Pinkham. 2002.** Towards a Decision Support Tool to Address Invasive Species in Garry Oak & Associated Ecosystems in BC. Prepared by ESSA Technologies Ltd., Victoria, B.C. for the GOERT Invasive Species Steering Committee, Victoria, 96 pp.
  

  
  **Summary:** Information on nesting habits and management.

- **The Garry Oak Ecosystems Recovery Team (GOERT), 2003.** Annotated Bibliographies on the Ecology and Management of *Passer domesticus*
  
  **Summary:** Available from: [http://www.goert.ca/documents/Bib_passdome.pdf](http://www.goert.ca/documents/Bib_passdome.pdf) [Accessed 13 February 2008]

- **The Garry Oak Ecosystems Recovery Team (GOERT), 2003.** Field manual of *Passer domesticus*
  
Summary: This database compiles information on alien species from British Overseas Territories. Available from: http://www.jncc.gov.uk/page-3660 [Accessed 10 November 2009]

General information


Biodiversity and Environmental Resource Data System of Belize (BERDS) Species profile Passer domesticus
Summary: The Biodiversity & Environmental Resource Data System (BERDS) is a comprehensive biodiversity and environmental data warehouse and research system built with one purpose - to enhance collaborative research and conservation efforts in Belize by providing shared access to not only accurate biodiversity- and environment-related data but also the tools necessary to begin research and investigation of that shared data. BERDS available from: http://www.biodiversity.bz/about/


Summary: English: The species list sheet for the Mexican information system on invasive species currently provides information related to Scientific names, family, group and common names, as well as habitat, status of invasion in Mexico, pathways of introduction and links to other specialised websites. Some of the higher risk species already have a direct link to the alert page. It is important to notice that these lists are constantly being updated, please refer to the main page (http://www.conabio.gob.mx/invasoras/index.php/Portada), under the section Novedades for information on updates. Invasive species - birds is available from: http://www.conabio.gob.mx/invasoras/index.php/Especies_invasoras_-_Aves [Accessed 30 July 2008]

Spanish: La lista de especies del Sistema de informaci?n sobre especies invasoras de m?xico cuenta actualmente con informaci?n acerca de nombre cient?fico, familia, grupo y nombre com?n, as? como h?bitat, estado de la invasi?n en M?xico, rutas de introducci?n y ligas a otros sitios especializados. Algunas de las especies de mayor riesgo ya tienen una liga directa a la p?gina de alertas. Es importante resaltar que estas listas se encuentran en constante proceso de actualizaci?n, por favor consulte la portada (http://www.conabio.gob.mx/invasoras/index.php/Portada), en la secci?n novedades, para conocer los cambios.

Summary: A short description of P. domesticus and similar species.

Summary: Notes on distribution and spread.
Summary: An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.


Summary: Base de données sur le patrimoine naturel français.
Available from:
Summary: General Information, Notes on similar species.
Summary: A map of P. domesticus summer distribution in the USA and Canada.