




Invasive species





1. General information

Fossils show that parrots already lived in Europe about 50 million years ago in the Eocene. They were also native to Europe in the Miocene, about 29 million years ago. But at some point, they disappeared from Europe. The wild parrots that can be observed in some places in Europe today are so-called introduced and sometimes invasive species. Invasive species are a major issue that is becoming increasingly important, especially in times of globalisation. Also, many parrot species have conquered new habitats and have different effects on the native nature or agriculture according to species and habitat. When an introduced species has a negative effect on native species, they are called an “invasive species”. Currently there are 11 introduced parrot species in Europe and some of these are considered invasive (Monk parakeet & Ring-necked parakeet).





Current status of the 11 alien parrot species in Europe (White et al. 2019)

| Species | Native range | Alien European range | Population size | Other Countries |
|---|---|---|-----------------|--|
| Yellow-collard lovebird <i>(Agapornis personatus)</i>  | Tanzania | France, Spain | unknown | Burundy & Kenya |
| Turquoise-fronted amazon <i>(Amazona aestival)</i>  | Argentina, Bolivia, Brazil, Paraguay | Italy (Genoa, Milan) Spain (Valencia) Switzerland (died out) | unknown | USA |
| Yellow-crowned amazon <i>(Amazona ochrocephala)</i>  | Central and South America | Italy (Genoa, Milan) | unknown | Barbados, Cayman Islands, Mexico, Netherlands Antilles, Puerto Rico, Trinidad, USA |



| Species | Native range | Alien European range | Population size | Other Countries |
|--|--------------------------|---|---------------------|--|
| Blue-crowned parakeet <i>(Aratinga acuticaudata)</i>  | South America | Spain (Barcelona, Valencia, Sabadell) UK Italy (died out) | less than 200 birds | USA |
| Red-masked parakeet <i>(Aratinga erythrogenys)</i>  | Ecuador, Peru | Spain (Barcelona, Valenica, Sevilla) | unknown | Cayman Islands, USA |
| Mitred parakeet <i>(Aratinga mitrata)</i>  | Argentina, Bolivia, Peru | Spain (Barcelona, Valencia, Mallorca) | unknown | Puerto Rico, USA |
| Budgerigar <i>(Melopsittacus undulatus)</i>  | Australia | Greece, Germany, Spain, Turkey Austria, Belgium, Italy (died out) | unknown | Cayman Islands, Dominican Republic, Guadeloupe, Hong-Kong, Jamaica, Japan, Mexico, Namibia, Oman, Puerto Rico, Qatar, Taiwan, USA, Venezuela |



| Species | Native range | Alien European range | Population size | Other Countries |
|--|--|---|---|---|
| <p>Monk parakeet (<i>Myiopsitta monachus</i>)</p>  | <p>Argentina, Bolivia, Brazil, Paraguay, Uruguay</p> | <p>Austria, Belgium, Czech Republic, France, Germany, Italy, Netherlands, Portugal, Spain, UK</p> | <p>more than 22.000 birds</p> | <p>Australia, Canada, Cayman Islands, Chile, Dominican Republic, Guadeloupe, Israel, Japan, Kenya, Mexico, Puerto Rico, USA, Venezuela</p> |
| <p>Nanday parakeet (<i>Nandayus nenday</i>)</p>  | <p>Argentina, Bolivia, Brazil, Paraguay</p> | <p>Spain (Barcelona)</p> | <p>5 pairs</p> | <p>Israel, Puerto Rico, USA</p> |
| <p>Alexandrine parakeet (<i>Psittacula eupatria</i>)</p>  | <p>Southern Asia</p> | <p>Belgium, Germany, Italy, Turkey,</p> | <p>minimum of 1.000 birds</p> | <p>Bahrain, Israel, Japan, Jordan, Oman, Yemen, United Arab Emirates</p> |
| <p>Ring-necked parakeet (<i>Psittacula krameri</i>)</p>  | <p>Southern Asia, sub-Saharan Africa</p> | <p>Austria, Belgium, France, Germany, Greece, Italy, Netherlands, Portugal, Slovenia, Spain, Turkey, UK</p> | <p>95 populations established since 1960s</p> <p>about 85.000 birds</p> | <p>In 33 countries like e.g. Australia, Barbados, China, Cuba, Egypt, Iran, Iraq, Israel, Japan, Jordan, Kenya, Kuwait, Maldives, Malta, Mauritius, Philippines, Singapore, Thailand, USA</p> |



➤ **How have they established**

- Animals have escaped from private holders or have been released
- They only have a few natural enemies such as predators and occupy a free ecological niche in Europe.
- In spring they feed on buds, shoots and flowers. In summer and autumn, they eat fruits and seeds. During the winter they use the feeding houses for native songbirds and eat grains, peanuts and titmouse dumplings.
- Species such as the Monk parakeet do not need nesting holes. They build large community nests from branches. They use trees, palm trees, electricity pylons and lanterns as nesting aids.

➤ **Impact on nature in general**

- Most parrots are cavity breeders. Therefore, they are competitors for woodpeckers, nuthatches, bats and many more species.
- Big flocks cause damage to crops.
- Large nesting colonies in power poles and lanterns are highly flammable and cause fires in cities.
- They are vectors for various diseases, such as ornithosis, salmonellosis and avian flu.

➤ **Apulia (Italy)**

- **Monk parakeet**
- Large flocks are invading plantations with almond and olive groves. With their strong beaks they can open the hard shell of the almonds.
- A third of the Italian almond harvest comes from Apulia, which is why this region is very important for Italian agriculture.
- The Italian farmers' association "Coldiretti" calls on the Italian government to act and discusses measures, including the targeted reduction of birds.

➤ **Seville (Spain)**

- **Ring-necked parakeet**
- Maria Luisa Park (Seville) is home for 500 individuals of the Greater noctule (mostly females), the greatest local population of this bat species.
- The first introduction of Ring-necked parakeet in Seville was in 1992.
- Parakeets are aggressive and attack noctules, mostly 3 hours before sunset, sometimes even killing the bats. Aggressive behaviour is explained by the fact that both species inhabit tree hollows and there is competition.
- Between 2013 and 2017 the population of Ring-necked parakeet increased by 96% percent. During the same period the population of the Greater noctules decreased by 71%.
- In 2017 the government of Seville planned measures to combat the collared parakeet. Due to pressure from animal welfare organisations the plans were not implemented.



→ It is a major problem in the management of invasive species that especially charismatic species often face public opposition.

➤ **USA**

- Invasive parrot species live not only in Europe. In the USA 56 different parrot species are known. Already 43 of the 50 U.S. states are populated by these species.
- Twenty-five of these species showed signs of breeding.
- Florida, California and Texas have the greatest numbers of invasive parrot species. Also, all of the 25 breeding species lives there. Unsurprising this is caused by the warm climate and the fact that most parrots are distributed in tropical regions.
- So far, there is no evidence in the USA that the invasive parrots have had any negative impact on native birds. Further research is needed to determine this more precisely.
- On the other hand, invasive parrots can also have an important role in species conservation. There are more of the threatened, Red-crowned Amazons surviving in California than in their natural habitat in Mexico.



WORLD PARROT DAY - May 31st