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TERIAS

TERRESTRIAL INVASIVE ALIEN SPECIES



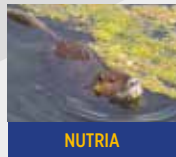
BUR CUCUMBER



THE ROSE - RINGED PARAKEET



EASTERN MOSQUITOFISH



NUTRIA



SILVER GIBEL CARP



RED-EARED SLIDER

Addressing of Invasive Alien Species Threats in Terrestrial Areas and Inland Waters in Turkey Project



TERIAS

Ministry of Agriculture and Forestry, General Directorate of Nature Conservation and National Parks, implementing the project in the scope of financial assistance under the Instrument for Pre-Accession Assistance (IPA II)

PROJECT OBJECTIVE

The project is aiming to ensure resilience of ecosystems and the protection of local / endemic species by taking invasive alien species under control, determining threats, reducing effects and preventing entry in terrestrial areas and inland waters in Turkey, in line with the EU Regulation 1143/2014.

END BENEFICIARY

Ministry of Agriculture and Forestry, General Directorate of Nature Conservation and National Parks.

INVASIVE ALIEN SPECIES

Invasive alien species are considered as one of the most important threat to biodiversity due to competition with native species and occupying their habitats, leading to genetic degradations, and transmitting diseases.

Controlling and preventing the entry of invasive alien species are important since they cause great damage to ecosystems, human health and economy.

Species that occur outside their natural range are called **alien species**.

Alien species that harm nature, native species, human health and the economy through their settlement and invasion are known as **invasive alien species**.

1

BUR CUCUMBER

Class: Dicotyledonae
Family name: Cucurbitaceae
Species name: *Sicyos angulatus* L.
Year of first report: 1994

Distribution range in Turkey: Eastern Black Sea Region and Eastern parts of the Central Black Sea Region

Main pathways: via bird migration, small mammals, human and transportation of agricultural products.

Native range: America

Habitat: Wet and humid areas which are rich in nutrition, inside the watercourse, floodplain areas, road banks, waste and garbage disposal areas

Impact: It climbs to cultivated plants in agricultural areas, causing them to fall over, causes product loss and make harvesting more difficult. It has especially impacted hazelnuts, tea and kiwi cultivations. It also damages the populations of some endemic flowering plants in invaded areas.



2

THE ROSE - RINGED PARAKEET

Class: Aves
Family name: Psittaculidae (Old World Parrots)
Species name: *Psittacula krameri*
Year of first report: 1975

Distribution range in Turkey: Istanbul, Izmir and Ankara in particular including registrations came from 30 different provinces.

Main pathways: Pet trade

Native range: Sub-Saharan Africa and India

Habitat: Residential parks and gardens, grows where there are trees, open farming areas and meadows.

Impact: Especially during breeding season they compete with nesting and food resources with local birds and mammals. It causes economic loss by feeding with various seeds, flowers and fruits that provide economic income. They consume a lot of sunflower and pistachio seeds especially in winters.



3

NUTRIA

Class: Mammalia
Family name: Myocastoridae
Species name: *Myocastor coypus* (Molina, 1782)
Year of first report: 1973

Distribution range in Turkey: Edirne and neighboring parts in west Turkey (Meriç, Arda and Tuna river system) Kars and Iğdır (Aras and Kura river system) in east Turkey

Main pathways: via rivers and streams

Native range: South America (Argentina, Bolivia, South Brazil, Chile, Paraguay, Uruguay)

Habitat: Living in usually rivers, streams and lakes that are shallow and reed-covered.

Impact: Their nests damage river banks and foundations of the weirs. They eat young sprouts of reeds and their rhizomes. By feeding on the rhizomes and young shoots of marsh plants, they cause the plant community to break down and can lead to erosion in coastal habitats.



4

RED-EARED SLIDER

Class: Reptilia
Family name: Emydidae
Species name: *Trachemys scripta elegans* (WIED 1838)
Year of first report: 2000s

Distribution range in Turkey: Records were received from 26 provinces in Turkey. It tends to create populations in Izmir, Muğla, Antalya, Adana and Mersin provinces.

Main pathways: Pet Trade

Native range: East of the United States and northeast of Mexico.

Habitat: Lives in a wide variety of freshwater habitats, including rivers, ditches, swamps, lakes and ponds (Bringsøe 2006).

Impact: Red-eared slider competes with native and endangered turtle species for food, habitat, and other resources. It threatens native and endemic fauna species and biological diversity, bears the risk of disease transmission threatening public health, and has unpredictable effects on natural habitats and ecosystems.

5

SILVER GIBEL CARP

Class: Actinopterygii
Family name: Cyprinidae
Species name: *Carassius gibelio*
Year of first report: 1988

Distribution range in Turkey: All over Turkey except Eastern Black Sea basin

Main pathways: By natural way and human

Native range: Central Asia

Habitat: Lakes, dams and still parts of rivers

Impact: This fish species, which has a high reproductive and competition potential becomes dominant species after establishing in its introduced water resources and threatens native species by altering flora and fauna. It causes economic and environmental damage by changing the physical, chemical and biological properties of habitats.



6

EASTERN MOSQUITOFISH

Class: Actinopterygii
Family name: Poeciliidae
Species name: *Gambusia holbrooki*
Year of first report: 1920

Distribution range in Turkey: All basins except Çoruh, Kura-Aras and Yeşilirmak (Kurtul, 2018; Yoğurtçuoğlu and Ekmekçi, 2018).

Main pathways: Release to fight mosquito and malaria

Native range: East of North America. Throughout the east of the Appalachian Mountains to the states of Miami and New Orleans (Pyke, 2008).

Habitat: Although it has a very flexible habitat compatibility, they generally prefer shallow, in still or little flowing waters and where underwater plants are abundant (Pyke, 2005; Pyke, 2008).

Impact: This species can decrease population numbers of fish, amphibian and invertebrate groups in aquatic ecosystems, and even can cause extinction of some species, through their predation, competition and aggressive behaviour. Ecosystem level deteriorations caused by the species have also been reported.



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