



Invasive Alien Species

Technical sheet #4

An **invasive alien species (IAS)** is a species introduced by man, intentionally or unintentionally, into a territory outside its natural range, which **threatens ecosystems**, natural habitats or local species, and which may have **economic and health impacts**.

Not all introduced species are invasive (around 1 in 1000). The **invasive process** follows four stages :

- **introduction** of plant or animal species into a new territory,
- **acclimatization** to the new territory,
- **reproduction** in the new territory,
- **high-speed expansion** to the detriment of local species.

Prevention and early detection of IAS are essential to limit their proliferation. The appearance of an IAS must lead to the implementation of specific management measures. Airports, as hubs for the transportation of people and goods, emerge as critical sites for the movement of species.

Today, although there is a growing collective awareness, with the adoption of a **national IAS strategy** in France in 2017 and the inclusion of measures to combat IAS in French regulations, IAS are still a **growing threat to biodiversity**.

DID YOU KNOW ?



IAS are one of the 5 direct causes of the collapse of global biodiversity. They are a threat to 1/3 of all species, and contribute to 60% of global extinctions.

Data : IPBES and OFB reports



Airport grasslands are no exception to the growing trend towards invasive alien species, which has a detrimental effect on the local biodiversity they may shelter.

CHALLENGES FOR BIODIVERSITY

At airports, **the invasion of airport grasslands** by invasive alien species is often linked to :

- **disturbances such as works** on the platform : leaving bare ground and turning over land can facilitate their establishment ;
- **soil brought in from outside**, which may contain fragments or seeds of IAS ;
- **planting IAS** for ornamental purposes.

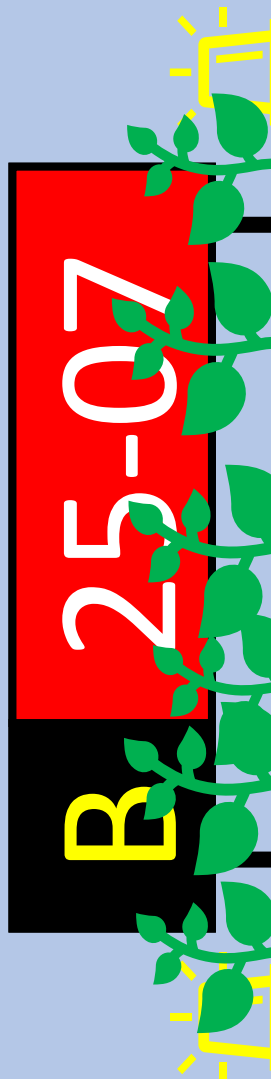
This proliferation can have **harmful consequences** for operational **safety** and operating **costs** :

- **Visibility problems** for pilots and airport agents (firefighters, wildlife management staff) on fences, runway edges, markings (lights, signs) requiring the implementation of an adapted and more regular mowing plan (Japanese knotweed...) ;
- **Overgrowth of water retention basins** (water Primrose, etc.);
- **Damage to fences** (Common Yarrow, Buddleia, American Grape, etc.);
- **Mowing residues** cannot be made into **hay** because of the **toxicity of certain species** (Cape Senna, etc.).

Local biodiversity also **suffers** from the proliferation of these IAS for various reasons:

- Capture of too large a share of resources (space, light, nutrients, etc.);
- Direct predation on local species;
- Transmission of pathogens.

The threat of IAS is particularly acute on **island territories**, especially in the **French overseas territories**, where geographical isolation makes local species, which are often endemic, highly vulnerable to external disturbances. **Climate change** and IAS are two interacting pressures whose synergies could **accelerate and amplify their respective impacts** on natural environments.



REMEMBER



In green spaces (both on the city side and the runway side), give preference to local plants, avoid exotic plants, and be careful about bringing in soil from outside.



Pay particular attention to identifying IAS, especially during the construction phase, to detect their appearance as early as possible and adapt maintenance accordingly.



The French Invasive Alien Species Resource Centre :
<https://especes-exotiques-envahissantes.fr/>



The French National Office for Biodiversity :
<https://www.ofb.gouv.fr/les-especes-exotiques-envahissantes>



The IUCN Invasive Species Specialist Group :
<https://iucn.org/fr/our-union/commissions/groupe/groupe-de-specialistes-des-especes-envahissantes-de-la-cse-de-luicn>



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Warning : this English version for non-French readers has been automatically generated using a translation software. Moreover, the recommendations given are adapted to French aerodromes, their climate and their management resources, and are therefore not all compatible with airports located elsewhere in the world.

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