



Orchids at Athens International Airport





- ✓ **Flora Hellenica:**

- **6750 plant taxa**

- **1500 endemics of all categories (22% of the total)**

- ✓ **The Region of Attiki despite the intense human interventions still holds a significant biodiversity, a good number of endemics, many named under its name.**

Background



- ✓ Greece hosts **150** taxa of the family *Orchidaceae*, out of the **250** occurring in Europe. **26** of them are endemic.
- ✓ The diversity is attributed to the climatic and geographical characteristics of Greece and the existence of isolated ecosystems.
- ✓ Some of the taxa are listed under the **IUCN Red Book of Plants**.
- ✓ All native taxa are protected by the **CITES Convention**.

Athens International Airport



- ✓ The airport is located at the Mesogeia Plain (E. Attiki), a rural area, which is surrounded by 3 mountains and low hills.
- ✓ The main land uses are Olive Groves, and Vineyards, while the hills around the airport are covered by phrygana, macchia and woodland (mainly Pines).
- ✓ The Vravrona Wetland, a NATURA 2000 Site is located E. of the airport

Airport vegetation



- ✓ **The earthworks for the construction of the airport concluded in 2000 and most of the unbuilt surface is meadows and brushwood.**
- ✓ **The plant communities that prevail at areas not treated (seeding or planting) are at the early stages of succession.**

Where do Orchids grow?



- ✓ **Mediterranean orchids, adapted to disturbances of the ecosystems (e.g. fires, grazing), tend to colonize areas during the first years of vegetation succession, forming colonies.**
- ✓ **The airport site is an example of this process.**
- ✓ **The regular mowing of herbaceous vegetation and the protection from grazing seem to contribute to the richness and abundance of orchids.**

Diversity of Taxa



The diversity of the species of the orchid family within the airport area is surprising, considering that at the airport site (16 km²) 22 taxa were recorded out of 66 so far found in the Region of Attiki.

Diversity of Taxa



- ✓ *Anacamptis coriophora* subsp. ***fragrans*** (Pollini) R.M.Bateman & al.
- ✓ *Anacamptis pyramidalis* (L.) Rich.
- ✓ *Himantoglossum robertianum* (Loisel.) P. Delforge
- ✓ *Ophrys delphinensis* O.Danesch & E. Danesch
- ✓ *Ophrys ferrum-equinum* subsp. ***ferrum-equinum*** Desf.
- ✓ *Ophrys helenae* Renz
- ✓ *Ophrys lutea* Cav.
- ✓ *Ophrys lutea* subsp. ***galilaea*** (H. Fleischm. & Bornm.) Soó (syn = *Ophrys sicula*)
- ✓ *Ophrys lutea* Cav. subsp. ***lutea*** (syn = *Ophrys phryganae*)
- ✓ *Ophrys lutea* subsp. ***melena*** Renz
- ✓ *Ophrys scolopax* Cav. subsp. ***heldreichii*** (Schlechter) E. Nelson (syn = *Ophrys schlechteriana*)
- ✓ *Ophrys sphegodes* subsp. ***aesculapii*** (Renz) J.J. Wood
- ✓ *Ophrys sphegodes* subsp. ***mammosa*** (Desf.) E. Nelson (syn = *Ophrys mammosa*)
- ✓ *Ophrys sphegodes* subsp. ***spruneri*** (Nyman) E. Nelson (syn = *Ophrys spruneri*)
- ✓ *Ophrys reinholdii* H. Fleischm
- ✓ *Ophrys tenthredinifera* Willd
- ✓ *Ophrys umbilicata* Desf. subsp. ***umbilicata*** (syn= *Ophrys attica*)
- ✓ *Orchis italica* Poir.
- ✓ *Serapias bergonii* E.G. Camus
- ✓ *Serapias lingua* L.
- ✓ *Serapias orientalis* (Greuter) H. Baumann & Künkele
- ✓ *Serapias vomeracea* (Burm. fil.) Briq.

Ophrys delphinensis



Endemic of the SE Peloponnisos and E. Sterea Hellas.

A rare species for the Region of Attiki.

So far only a few individuals have been recorded at the airport.

Ophrys helenae



Orchid with main distribution in Northwestern Greece.

Rare for the Region of Attiki, found at few areas in individuals.

The record at the airport is the southeasternmost area of distribution of the species.

Ophrys reinholdii



Mostly growing in Greece and the Aegean islands.

At the Region of Attiki was so far recorded only at Mount Imittos.

Serapias lingua



Mediterranean orchid.

It has been found in a few locations in the area of eastern Attiki, but always in the form of individuals or small groups.

A small group of about 30 individuals have been located at the airport.

Ophrys speculum



Growing all over Greece.

It has been found in several locations in Attiki, but always the number of registered individuals is small (individuals or small groups).

At the airport it was spotted in two locations at the north part.

Anacamptis coriophora subsp. *fragrans*



Mediterranean orchid with a vanilla fragrance

In Attiki it has been recorded in a limited number of places, but within the airport premises it is among the most common orchids, forming extensive populations consisting of numerous individuals. It is the latest species, since it blooms from mid-April to the end of May.

Hybrids



Within the airport site, and among various parent species of orchids, a significant number of hybrids have been recorded, some of which have a relatively high occurrence.

Conclusions



- ✓ **The airport area, as far as Orchids are concerned, has increased floristic value.**
- ✓ **Some of the species recorded are quite rare for Attiki.**
- ✓ **Common species form large populations.**
- ✓ **The airport area is an ideal case for studying the dynamics of orchid populations in initial phases of ecosystem succession.**