

Ecological research airbase Decimomannu/Sardinia. (lecture held by Oth. De. 72)

Because of the increasing number of birdstrikes in Sardinia (35 birdstrikes within 3 years, maxima in april, july and october, small birds, ducks, terns and gulls) GAF carried out ecological investigations especially in the SW region of the isle.

I. General research

1. Airbase Decimomannu, 400 ha, part of the so-called Campidano, old "granar" of Sardinia.

Soils different; powdery and dry, loamy sand soil, a little bit mould, small class of fertility, little permeable to water; ground water level depends on precipitation; total quantity of precipitation annual 484 mm, max. in march/april and october/november; inundations during these seasons in spite of drainings which are not sufficient; therefore some waterfowl - and vader - species.

Grassland areas with many weeds, hay using, length of grass species and reed in june 40-50 cm (small bird's breeding areas).

Dust heap in the SE part of the base. Favourable nesting places in the hangars; trees only in the lodging district.

2. Surrounding area from Cagliari to Oristano (= Campidano), plain district bordered by hills and swampy lakes, favourable for all bird species. Approach flight procedures.

3. Frasca Range, situated on the western coast of Sardinia, 65 m above sea level, northern point of the Monte Arcuente, near the Golf Oristano; steep rocks to the sea, therefore caused by thermal effects many flights of gulls, terns etc. Max flight height of planes approx. 50 ft.

II. Special Research

1. Vegetational Status

a) The grassland areas on the base have a rude structure with more than 12 graminaceae- and nearly 50 weed species (table in publication).

In the lodging area the grasslands have a meadow structure with loose tree plantations for instance Acacia, Eucalyptus, Pinus, Cupressus, oaks, roses, vine, Myrtus, Ficus, Pistacia etc.

b) The surrounding Campidano is a cattle farming (sheep) and agricultural district (corn, legume, turnips), moreover there exists plantation of orange, olivetrees, peach-trees and almond-trees; the weed areas consist of typical mediterranean vegetation (machia and garigue).

c) The Frasca Range has the character of a typical mediterranean shrubb, Garig

2. Bird species

Their composition depends on season especially the type of migrating birds which visit Sardinia for some resting days before going to Africa or which stay in Sardinia during wintertime.

Two migrating routes are to distinguish: from Genova crossing Corsica and Sardinia from La Maddalena to Cagliari and Tunisia and along the W- and E-Coasts.

Beginning of spring migration, direction E: February with maximum in March/April, and that:

- 12.3. - 18.4. Migration of small birds
- 15.2. - 14.3. Migration of falcons.
- 4.4. - 11.4. Migration of turtle doves
- 27.2. - 15.4. Migration ducks, flamingos, lapwings
- 15.4. - 5.3. Migration of shanks
- 1.3. - 15.4. Migration of herons

Highest migration frequency in spring along W coast (waterfowl and water) as well as in central Sardinia (small birds).

Autumn migration depends on beginning of precipitation, and that:

- 25.9. - 15.10. Migration of swifts and swallows
- October Migration of waterfowl and starlings
- September Migration of herons

Highest migration frequency in autumn along E coast and central Sardinia with damming up of migration in Cagliari area.

A list of bird species living in the Decimomannu airbase, the Campidano and the Frasca Range as well as on the lakes you will find in the German publication. The lowest birdstrike danger seems to exist only in early summertime.

Flight heights of birds in Sardinia up to 5000 ft(GND) especially during migration periods during the first part of day and night, generally only up to 3000 ft(GND), along the coast and hills up to 10000 ft(GND) (seagulls and hawks).

3. Other animals

On the base we find a lot of insects, big grasshoppers, lizards, vipers, snakes, ants, rabbits, weasels, rats, mice, wild cats and dogs.

In June 1969 GAF made proposals for special provisions on the airbase and the range. A summary of the research and proposals was given to the international meeting in Rome but without results.

GAF offered to Italian commander to install a polaroid camera in COA and to give some lessons with the meteorological and ATC people about bird migration, bird observation and warning system. But there was no response; we are sorry about that and hope the last international conference in any had better results.