

# THE CRAU GRASSHOPPER

SCIENTIFIC NAME: **Prionotropis rhodanica**

CONSERVATION STATUS: **Critically Endangered CR**

## FACT FILE

- CLASS: INSECTA
- ORDER: ORTHOPTERA
- FAMILY: PAMPHAGIDAE
- ENDEMISM: ENDEMIC TO THE CRAU PLAIN IN SOUTHERN FRANCE
- SIZE: 35mm to 45mm



The Crau grasshopper is a critically endangered **flightless** grasshopper found only on the Crau plain in southern France. It is one of the rarest orthopteran species in Europe and is entirely dependent on this **single unique landscape** for its survival. The species is robust and well camouflaged with grey brown colouring that allows it to blend into the stony ground of the steppe. Its wings are reduced and it cannot fly which severely limits its ability to disperse and recolonise new areas if populations decline.



## A MEDITERRANEAN STEPPE SPECIALIST

### PHYSICAL DESCRIPTION

Adults are robust and heavily built, measuring between 35 and 45 millimetres in body length. The body is cryptically coloured in grey-brown with irregular mottled patterns that blend seamlessly with the stony soil and sparse vegetation. Wings are extremely reduced, usually under 5 millimetres, rendering the species incapable of flight. Nymphs hatch at approximately 8–12 millimetres and develop through five to six instars before reaching adult size. Eggs are cylindrical, around 6 millimetres long, and are laid individually in soil depressions.

### LIFE CYCLE AND REPRODUCTION

Eggs are deposited in late summer and overwinter underground, hatching in spring. Adults are primarily present between July and September, completing a univoltine life cycle. Timing of development is closely linked to temperature, moisture and vegetation structure, which provide essential thermoregulation and feeding conditions for nymphs and adults alike.

### HABITAT AND ECOLOGY

The Crau grasshopper inhabits the Coussoul, a dry Mediterranean steppe characterised by flat, pebbly alluvial soils, sparse grasses, herbaceous plants and occasional shrubs. Adults and nymphs require open, sun-exposed ground and undisturbed soil for egg-laying. The species feeds on grasses and low herbaceous plants, relying on stable vegetation structure for shelter, thermoregulation and food. Traditional low-intensity sheep grazing has historically maintained suitable habitat conditions.

## ENDEMIC TO A SINGLE LANDSCAPE AND SERVES AS AN INDICATOR OF THE ECOLOGICAL HEALTH OF THE CRAU STEPPE.

### BEHAVIOUR AND DISPERSAL

Behaviourally, the species is sedentary, relying on camouflage and immobility to avoid predation. Adults can hop short distances but rarely move beyond their immediate habitat patch. Flightlessness severely limits dispersal, making populations highly isolated and vulnerable to habitat fragmentation.

### DISTRIBUTION AND POPULATION TRENDS

Historically widespread across the Crau plain, the grasshopper now occupies only small, fragmented patches. Populations are localised and isolated, leaving them highly vulnerable to stochastic events and environmental changes.



### THREATS

Habitat loss due to agriculture, industrial development, urbanisation, and infrastructure is the principal threat. Fragmentation isolates populations, while changes in grazing can lead to either scrub encroachment or overgrazing. Pollution, accidental fires and climate change further exacerbate vulnerability.

### CONSERVATION MEASURES

Conservation focuses on habitat protection and restoration, maintaining low-intensity grazing and monitoring populations. Protected areas have been established, and public awareness initiatives engage local pastoral communities. The species is legally protected and considered a conservation priority due to its restricted range and ecological significance.

### ECOLOGICAL IMPORTANCE

The Crau grasshopper is a flagship species and an indicator of the health of one of Europe's last semi-natural dry steppe ecosystems. Conserving it safeguards the wider biodiversity of the Coussoul, including rare invertebrates, endemic plants and the semi-natural landscape shaped by centuries of pastoralism.