

## **FAO DESERT LOCUST BULLETIN No 134**

### **GENERAL SITUATION DURING OCTOBER 1989 FORECAST UNTIL MID DECEMBER 1989**

**The only significant Desert Locust populations reported during the period were from Pakistan and India where small swarms and hopper bands were present. Hoppers will continue to occur although further laying is unlikely. Adult numbers will decline following westward migration to the Mekran of Baluchistan. Elsewhere, the only locusts reported were scattered adults and hoppers in parts of West Africa. The forecast period covers the time of year when adults move to winter-spring breeding areas of North-West Africa and the coastal plains of the Red Sea and Gulf of Aden. Movement this year will involve only scattered adults in small numbers.**

Low numbers of scattered adults and hoppers were present in Mauritania, Mali, and Niger. Reports were mainly from the Adrar des Iforas and Tamesna of Mali where small scale breeding was in progress and scattered adults and hoppers were present at numerous locations. No significant rainfall was reported in these areas during October. These populations are likely to fledge shortly and migrate out of the area toward winter-spring breeding areas of northern Mauritania, southern Morocco and central Algeria. However, some of the later fledging adults may persist in the wadis and depressions of the Adrar des Iforas, Tamesna, and Air since temperatures will decline below the threshold for night flight.

Scattered adults may be present in low numbers in the interior of Sudan and they are likely to migrate from there to winter breeding areas on the Red Sea coast. Breeding is expected to occur on a small scale in the Tokar Delta, in wadis in the northern sub-coastal hills, and on the northern coast of Ethiopia. It is likely that swarms reported in northern Somalia were not Desert Locusts since none have been seen since September.

Some scattered adults may be present on the Tihama of Saudi Arabia and Yemen AR; small scale breeding is likely in the areas that have received moderate rainfall.

Several small swarms are present in Pakistan and India and breeding is in progress. Second generation fledging will commence during the forecast period. Some populations are likely to persist in these areas while other adults will move west and south-west to the Mekran of Baluchistan. Small numbers of adults may continue moving further west to southern Iran and perhaps eastern Arabia.



## WEATHER AND ECOLOGICAL CONDITIONS

During October, the ITCZ continued its southward movement and was situated between 10-15°N. As a result, moderate easterly winds were present, blowing from central Sudan and central Chad to northern Niger and northern Mali. Rains associated with the ITCZ fell to the south of the Desert Locust breeding areas.

In Mauritania, ARTEMIS and METEOSAT imagery indicate that light rains may have fallen in the extreme south and around Nouakchott during the first decade of October. Kaedi received 14 mm and Touil 13 mm during the first half of the month. Annual vegetation was reported to be drying south of 17°N in early October. By the end of the month, about 95% of the vegetation was reported dry in central regions with the exception of some green patches in depressions. Conditions are therefore unlikely to be favourable for breeding.

In Mali, ARTEMIS and METEOSAT imagery indicate that light rains fell in the south-west, near Mopti, and Menaka. Vegetation is beginning to dry out in the western Adrar des Iforas; however, some areas of green are likely to be present in depressions north of Menaka and in wadis of the Adrar des Iforas and Tamesna. In Niger, green vegetation was reported to be present in central and southern Air. No rainfall has been reported and satellite imagery suggests that rainfall occurred only in the extreme south.

In Chad, ARTEMIS imagery indicates heavy rainfall south of N'Djamena-Abeche in early October. During the first decade of October, N'Djamena received 79 mm and Abeche 29 mm (the monthly mean is 16 mm and 5 mm, respectively). Central and northern Chad remained dry and conditions are expected to be unfavourable for Desert Locust breeding.

In Sudan, ARTEMIS and METEOSAT imagery suggest heavy rainfall south of a line El Geneina-Khartoum and light rainfall from Shendi to Karima. Vegetation was reported to be drying out in Northern Kordofan and Northern Darfur. In late October, light to moderate rain fell on the Red Sea coast. Port Sudan received 17 mm and Tokar 35 mm on the 26-27th.

In Saudi Arabia, a depression caused heavy rains in Jizan in mid October and ecological conditions are likely to be favourable on the Tihama. In Yemen AR, breeding conditions were reported to be favourable in some areas of the Tihama due to good rainfall received during September and October.

Light rains fell in Jodhpur and Bikaner districts of India in late September. Winds were predominately from between north-west and north-east.

Seasonal rains have commenced in North-West Africa with rainfall reported from Morocco and Algeria. Rainfall was heavy in coastal areas and light in the interior of central Algeria. Ecological conditions in the central region are likely to become favourable during the forecast period.



### AREA TREATED IN OCTOBER 1989

Mali (September)	700 ha
Mali (October)	260 ha
Pakistan (September)	within 10,000 ha area
Pakistan (October)	no details available
India (September)	21,480 ha
India (1-15 October)	19,880 ha



### DESERT LOCUST SITUATION

#### WEST AFRICA

##### MAURITANIA

Late reports indicated scattered copulating adults 5 km south-west of Aioun El Atrous (1638N/0935W) on 23 September and scattered hoppers and adults at Grara Levrass (1948N/1344W) on the 26th.

In early October, aerial surveys did not find any Desert Locusts in the Inchiri or Tiris Zemour regions of northern Mauritania. In central Mauritania, scattered adults were present west of Aioun El Atrous at El Gharbaniya (1655N/0958W) on the 1st and at Lwasar (1645N/0904W) on the 9th.

In late October, scattered adults were reported in Inchiri south-east of Akjoujt at Lemdenna (1919N/1431W) and Demane (1918N/1413W) within an area of 2,500 ha at a density of 1-2 per ha. Aerial surveys near Tidjikja and Aioun El Atrous did not detect any locusts.

##### MALI

Surveys on 29-30 September reported scattered adults, at a density of 10-20 per ha, in the Adrar des Iforas at Ouzzeine (1911N/0148E) over a 600 ha area and in the Tilemsi Valley at Ibdeken (1827N/0042E) over 210 ha. Control operations were carried out near Menaka against scattered first to fourth instar hoppers and adults over a 200 ha area at Tin Auamine (1614N/0210E) and over a 500 ha area at Tin Fadjadjen (1633N/0226E) on the 30th.

During the first two decades of October, scattered adults and hoppers were present in northern and eastern Mali. In Timetrine, scattered immature and mature adults, at densities of 6-50 per ha, were reported at 3 locations within an area of 1,150 ha. In the Tilemsi Valley, immature and mature adults were reported, at densities of 6-600 per ha, at 5 locations within a total area of 1,820 ha. In the Adrar des Iforas, scattered adults at maximum densities of 20-400 per ha were reported within a 900 ha area at 3 locations. On the 8th, scattered adults and first to fourth instar hoppers, at densities of 150-300 per ha, were present within 150 ha at Edjerer (1941N/0143E). On the 20th, mature adults at densities of 20-50 per ha and first to fifth instar hoppers at densities of 100-300 per ha were reported on 200 ha at Akelo (1810N/0230E). On the 23rd, adults at densities of 100-1,500 per ha were reported at Afara (1956N/0058E). In Tamesna, immature and mature adults mixed with first to fourth instar hoppers were reported at 20 locations north of Menaka, in the Azaouak Valley, and further east to the Niger border, with a maximum density of 5,000 hoppers per ha reported over 10 ha at Tin Amagal (1732N/0350E) on the 8th. Control operations treated 260 ha at Alrherane (1801N/0401E) on the 23rd.

**NIGER**

In mid October, scattered immature and mature adults, at densities of 5-40 per ha, were reported in Tamesna at Tagdait (1830N/0645E) and In Ontolog (1749N/0600E) within 1,000 ha. Copulating adults, at a density of 20 per ha, and hoppers were reported on 30 ha at Mont Dellal (1708N/0520E). In Air, scattered adults were present at densities of 1-10 per ha at Tessanouaga (1930N/0835E) and Aberkot (1920N/0828E) over an area of 1,000 ha. Scattered adults and hoppers were also reported near Temet (2021N/0826E).

In late October, some hoppers mixed with grasshoppers were reported in the Azaouak Valley of Tamesna and scattered adults, at densities of 10-30 per ha, were present in the Air.

**BURKINA FASO**

There was an unconfirmed report of Desert Locusts near Ouahigouya and Dori in early October. No further details were available.

**CHAD**

The Desert Locust situation was reported calm up to 17 October.

**SENEGAL**

The Desert Locust situation was reported calm up to 15 October.

**CAMEROON**

The Desert Locust situation was reported calm up to 15 October.

**NORTH-WEST AFRICA**

**No locust information had been received from countries in the region up to 31 October.**

**EASTERN AFRICA****SUDAN**

During the first week of October, surveys were carried out north of Khartoum, north and west of Atbara and north of Abu Hamad in the Northern province, north and north-west of El Fasher in the Northern Darfur province, and on the northern Red Sea coastal plain. All areas were reported to be free of locusts.

Surveys in mid October reported that Northern Kordofan and Northern Darfur continued to be free of locusts.

**ETHIOPIA**

No locusts were reported in northern or south-eastern Ethiopia up to the end of September.

**NEAR EAST****KINGDOM OF SAUDI ARABIA**

No Desert Locusts were reported up to 20 October.

**YEMEN AR**

The Tihama was reported clear of Desert Locusts by 17 October.

**IRAQ**

The Desert Locust situation was reported clear in September.

## SOUTH-WEST ASIA

### PAKISTAN

Late reports indicated that numerous small mature swarms laid in the Cholistan, Tharparkar, and Khipro deserts between 7 and 30 September. Hatching commenced on the 17th and numerous small to medium size bands were present in southern Cholistan and Khipro. High concentrations of adults, up to 30,000 per sq. km, and hoppers were present in the Karachi, Sukkur, and Bahawalpur areas. Aerial and ground control operations were in progress within an area of 100 sq. km.

During the first half of October, four immature swarms between 1 and 10 sq. km in size and 679 small to medium size first to third instar hopper bands were reported in the Khipro Desert. In Cholistan, 48 small to medium size first to third instar hopper bands and high densities of adults were reported over an area of 15 sq. km. Aerial and ground control operations were in progress.

### INDIA

Late reports were received of mature laying swarms, up to 20 sq. km in size, and hoppers in Jaisalmer, Jodhpur, and Bikaner districts of western Rajasthan during September. Scattered adults at densities up to 5,000 per sq. km were also present at numerous localities in Rajasthan. A total of 3,105 ha were treated by ground and 18,375 ha by air by the end of September.

During the first half of October, breeding continued in western Rajasthan. A total of 630 ha were treated by ground and 19,250 ha by air.

### IRAN

No Desert Locusts were reported up to 5 October.

<b>NEW ASSISTANCE REQUESTED</b>
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No requests for assistance against Desert Locusts had been received up to 31 October.

<b>NEW ASSISTANCE PLEDGED</b>
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No reports of assistance pledged for Desert Locusts had been received up to 31 October.



## FORECAST UNTIL MID DECEMBER 1989

### WEST AFRICA

#### **MAURITANIA**

Scattered adults will migrate north toward winter-spring breeding areas from central regions on a small scale during the forecast period. Adults populations may increase slightly in the central region as a result of possible small scale migrations from the east.

#### **MALI**

Fledging will commence shortly and adults will migrate north toward winter-spring breeding areas in North-West Africa during the forecast period. Decreasing temperatures will prevent night flight so some adults are likely to persist in the Adrar des Iforas and Tamesna.

#### **NIGER**

Fledging will commence and adults will move north toward winter breeding areas in North-West Africa during the forecast period. Decreasing temperatures will prevent night flight so some adults are likely to persist in Tamesna and Air.

#### **CHAD**

Low numbers of adults may be present; these will move toward winter-spring breeding areas in North-West Africa during the forecast period.

#### **CAMEROON, BURKINA FASO, GAMBIA, GUINEA BISSAU, GUINEA CONAKRY and SENEGAL**

No significant developments are likely and no invasions are expected.

### NORTH-WEST AFRICA

#### **MOROCCO**

Small numbers of adults are likely to occur as a result of small scale migrations from the south into winter-spring breeding areas of southern Morocco south of the Atlas.

#### **ALGERIA**

Small numbers of adults are likely to occur as a result of small scale migrations from the south into winter-spring breeding areas of southern Algeria and the Hoggar mountains.

#### **TUNISIA and LIBYA**

No significant developments are likely and no invasions are expected.

### EASTERN AFRICA

#### **SUDAN**

Small scale breeding is likely in areas as a result of moderate rainfall which has occurred along the Red Sea coast, primarily south of Port Sudan, in the Tokar Delta, and further north in wadis of the sub-coastal hills.

#### **ETHIOPIA**

Small scale breeding is likely along the northern Red Sea coast in areas of recent rainfall.

**SOMALIA**

As no further reports of Desert Locusts have been received, earlier reports of swarms in the north are assumed not to be Desert Locusts. Hence, **no significant developments are likely and no invasions are expected.**

**DJIBOUTI, KENYA, UGANDA, and TANZANIA**

**No significant developments are likely and no invasions are expected.**

## NEAR EAST

**KINGDOM OF SAUDI ARABIA**

Small scale breeding may occur on the Tihama in areas of recent rain. Adults may occur on the Tihama coast as a result of small scale migrations from the west.

**YEMEN ARAB REPUBLIC**

Small scale breeding may occur on the Tihama in areas of recent rain.

**YEMEN PDR**

Small scale breeding is possible on the south-western coastal plain in areas of recent rain. Adults may occur as a result of small scale migrations from South-West Asia.

**OMAN**

Adults may occur on the coastal plains as a result of small scale migrations from South-West Asia.

**BAHRAIN, EGYPT, IRAQ, ISRAEL, JORDAN, KUWAIT, QATAR, SYRIA, TURKEY, and UAE**

**No significant developments are likely and no invasions are expected.**

## SOUTH-WEST ASIA

**PAKISTAN**

Hopper development will continue with fledging occurring throughout the forecast period. Substantial numbers of scattered adults and a few small swarms will move toward the south-west and west into the Mekran of Baluchistan and small numbers may move further west. Some adults will persist in the Cholistan and Tharparkar deserts. Laying is not expected.

**INDIA**

Hopper development will continue with fledging occurring throughout the forecast period. Substantial numbers of scattered adults and a few small swarms will move toward the south-west and west into Baluchistan and Mekran and small numbers may move further west. Some adults will persist in Rajasthan. Laying is not expected.

**IRAN**

Adults may as a result of small scale migrations occur into southern areas from the east.

**AFGANISTAN**

**No significant developments are likely and no invasions are expected.**

*3 November 1989*





# Desert Locust Summary No. 134

## Criquet Pèlerin : Résumé No. 134

