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## Locusts, other migratory pests and emergency operations group

# DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 112 DECEMBER 1987 - EARLY JANUARY 1988

#### SUMMARY

The largest populations were in Western Sahara and northern Mauritania and conditions were very favorable for further breeding in both areas. A number of swarms were produced in Mali and some escaped to the west in December. There were large residual populations in Niger and some small swarms were reported from southern Libya and north-eastern Sudan. Elsewhere the situation was calm.

#### WEST AFRICA

## Meteorology

The Intertropical Convergence Zone (ITCZ) lay well to the south of the Desert Locust breeding areas. In northern Mauritania daytime temperatures reached 25°C, 3°C higher than normal, during the first two decades of December and there was further good rainfall. Zouerate had recorded 117,6 mm up to the end of December (nearly twice the mean annual rainfall) and Bir Moghrein had received 76 mm, of which 11 mm fell in December. By mid-January daytime temperatures again reached 23-25°C. Over the most of the region, however, easterly winds and cool temperatures prevailed.

## Breeding conditions

Due to the good rains, conditions were very favourable for breeding in northern Mauritania. There was abundant green vegetation throughout the area between 22° and 26°N. In Mali conditions were favorable for breeding in some areas in Tamesna and the Adrar des Iforas in December. In Niger ecological conditions were reported to be fair in Tamesna in December.

### Locusts

#### MAURITANIA

There were numerous reports of mature swarms, laying, hatching and hopper bands from the northern region.

#### TIRIS-ZEMMOUR

A number of mature swarms were seen between Zouerate and Bir Moghrein in the first decade of December. On 3 December swarms were reported from Bir Moghrein up to within 110 km of Zouerate, on 4 December a swarm was swettled over a distance of 5 km at Oum D'Ferat (2328N/1235W), on 6 December concentrations of adults were seen copulating over 12 ha 30 km north of Oum Roueissine (2345N/1138W), a swarm was seen at Guelb Atrouss (2311N/1221W), on 7 December a swarm was seen over 5 km at Tmeimichat (2407N/1150W), on 8 December a yellow swarm 3 km in length was seen 58 km south-west of Aguilet El Adam (2346N/1150W) and on 9 December a swarm settled at Zouerate.

Further swarms were seen in the same areas in the last decade. On 20 December a mature copulating swarm covering 24 ha was seen at Tourassine (2430N/1124W); on 24 December a swarm from the west passed between Tignabum El Beïda (2316N/1223W) and Tignabum El Khadra (2322N/1223W) and then flew along the Kedieth Leghrem (2312N/1215W). On 25 December mature adults were seen over 4 ha in Oued El Agareb (2317N/1204W), a settled swarm was seen at (2312N/1215W), a swarm covering 20 sq. km was settled on (2312N/1213W) and a swarm covering 12 sq. km was settled at (2318N/1210W). A truck driver reported a mature swarm south—east of Oum Roueissine and another at Guelb Mijik (2331N/1250W).

In early January a mature swarm measuring 2 sq. km was seen 10 km south-east of Tourassine (2439N/1122W); immature adults at low density were seen at Louberat wells (2326N/1155W). On 17 January a mature laying swarm was settled over 8 sq. km 5 km south-east of Tenyamoun (2316N/1235W).

In early December small numbers of early instar hoppers were seen in the Bir Moghrein-Zouerate areas and by mid-December some hoppers had reached the fourth instar. By early January it was estimated that the gross infested area was some 83,000 ha in three areas bounded by 2409-2455N, 1100-1120W; 2409-2416N, 1120-1140W; 2427-2440N, 1120-1140W. Hoppers of all instars were present. In mid-January hatching and further band formation was continuing.

Three ground teams had treated 57,879 ha up to 25 January using 24,401 kg Propoxur 2% dust, 23,186 1 Fenitrothion 50% ULV and 650 1 Fenitrothion 96% ULV.

#### ADRAR

Further hoppers were found over 400 ha at Eirich Guebli (1957N/1325W) in early December. 181 ha were treated with 740 kg Propoxur 2% dust.

#### TAGANT

Small numbers of hopper bands were found and treated in the Tidjikja area in the first half of December. 7,487 ha were treated with 1,840 l Fenitrothion 50% ULV and 8,661 kg Propoxur 2% dust. On 15 December traces of swarm were found at 1828N/1225W. By the end of the month the situation was calm.

#### INCHIRI

Laying swarms were reported from Nouadhibou on 6 January. Ground control was undertaken but some adults flew out to sea.

#### MALI

In early December in Tamesna and northern Adrar des Iforas there was widespread fledging, giving use to large concentrations of fledglings over tens to hundreds of hectares, mixed with fourth and fifth instar hoppers. As reported in Summary No. 111 small milling immature swarms were seen at Tin Essako, 8 km west of Tin Essako, in Oued In Ounfassen (1810W/0310E) and mixed with fourth and fifth instar bands in Oued Edjerer (1952N/0124E) in early December. A swarm settled on Acacias in Oued Assas (1822N/0221E) on 9 December a thin swarm was seen over 5 ha at Oued Eleoudj (1926N/0040E) on 12 December, a dense swarm flew north-west over Aguelhoc for 1.5 hours on 13 December and milling fledglings were seen at Tarlit (1944N/0008E) on 14 December. In mid-December a thin swarm was seen flying west at Tintiska (2019N/0114E) and a dense milling swarm was seen at Eghergher (2016N/0131E).

In Timetrine adults were present at densities of up to 150,000 per hectare mixed with fourth and fifth instar hopper bands.

In the first decade of January only a few small immature swarms remained in Tamesna. Groups of hoppers were present in Oued Tin Tamayot (1716N/0332E). In Central Adrar des Iforas, also, a few swarms persisted. On 6 January a dense low flying swarm reported to be 150 sq. km flew west-north-west over Aguelhoc; on the same day a swarm, density 5-100 per square metre, was seen in Oued Eleoudj and departed to the west. On 10 January some copulating and laying adults were seen at 1927N/0129E. Up to 29 December 8,903 ha had been treated with 950 l of Dieldrin 5%. 90 l Dieldrin 20% and 3,300 l Malathion ULV. In the first decade of January a further 5,697 ha were treated. In mid-January it was estimated that a further 10,000 ha needed treatment in the Adrar, Timetrine and Tamesna.

#### NIGER

A large dispersed population was reported to have survived treatment in late November in Tamesna and Air. Ground and aerial control operations were undertaken against mostly immature adults in the Edek (1811N/0431E) and Anou Melen regions in early December.

CHAD

There were no further reports.

ATLANTIC OCEAN

Isolated yellow locusts came on board a ship on 25 January at 2050N/1700W. Species not known.

LIBYA

In early December, four swarms were reported in Murzak (2555N/1355E).

#### NORTH-WEST AFRICA

## Meteorology

Scattered rainfall was reported from various areas in Algeria throughout the period. Above average rainfall was recorded at Adrar (4.9 mm), Bechar (19.8 mm), Ghardaia (5.2 mm), Tamanrasset (4.0 mm), and Tindouf (5.5 mm). From 1 to 5 January, Djanet received 21 mm of rain (yearly average is 26 mm).

#### Breeding Conditions

Because of the rains of November and December, breeding conditions were good in Algeria and extremely favorable in Western Sahara. Abundant vegetation in Western Sahara was confirmed by the NOAA/AVHRR imagery in the last two decades of December and the first two decades of January.

## Locusts

MOROCCO

Swarms and hopper infestations continued to be reported in the Tata (2943N/0758W) and Guelmin (2858N/1004W) areas up to 13 January. Aerial and ground control operations were in progress throughout the period. By 13 January, 218,782 ha had been treated (including the Western Sahara).

#### WESTERN SAHARA

Localized swarms and hopper infestations were reported throughout December and January from Laayoune (2704N/1315W), Smara (2630N/1131W), and Dakhla (2339N/1555W). No further details were available. In mid-December control operations were in progress. On 22 to 23 December, 12,900 ha were treated at Smara and Farsia (2706N/0951W). By 26 January, ground control operations had treated 50,800 ha of first to third instar hoppers (90% were second instar) in Western Sahara.

#### ALGERIA

Between 8 and 13 December there were several reports of swarms flying west and north in the Bordj Beji Mokhtar area (2120N/0005E). A small swarm was seen at Tindouf on 3 December and on 17 December a 20 sq. km swarm was sprayed in Oued Sobti (2730N/0820W), south of Tindouf.

In mid-December first and second instar hoppers, first reported by momads, were confirmed in Oued Toutrate (2700N/0755W), Oued Medhafra (2710N/0745W) and unconfirmed in Oued N'Sirat (2050N/0745W), 95 km south of Tindouf. Traces were seen at Guelb el Atrouss.

In late January 100 ha of late instar hoppers were controlled in the Tindouf area.

#### EASTERN AFRICA

## Meteorology

Heavy rains fell in late November on the Red Sea coast of Sudan. Rain was also reported from Tokar Delta and southern and central Red Sea coastal areas at the end of December.

## Breeding Conditions

Due to the winter rains, conditions were favorable for breeding on the Red Sea coastal plain of Sudan.

#### Locusts

SUDAN

#### RED SEA PROVINCE

During December, immature swarms were reported from the Musmar area at Khor Arab (1816N/3532E) and Khor Barut (1841N/3523E) covering 1,800 ha, and on the 11th at Khor Ariab (1845N/3532E) covering 1,200 ha. Scattered newly fledged adults at a maximum 2,100 per hectare over an area of 3,100 ha were found in the Sinkat and Durbeb areas and Tokar Delta. Groups of third operations were in progress in all infested areas using Fenitrothion, Diazinon, and poison bait.

#### NORTHERN PROVINCE

On 2 December, scattered adults were observed in the Shendi area at Hager El Teib (1634N/3253E). On 14 December immature adults at varying densities were found in the Ed Damer area covering an area of 3,000 ha. Ground control operations were undertaken over 1,800 ha using Fenitrothion and poison bait.

ETHIOPIA, DJIBOUTI, and SOMALIA were reported clear through mid-January.

#### NEAR EAST

## Meteorology

During the period, scattered rain, heavy at times, fell on the Red Sea coast and northern interior of Saudi Arabia and in the Tihama of the Yemen Arab Republic.

## Breeding Conditions

Due to the rains, conditions were favorable for breeding on the Tihamas of Saudi Arabia and the Yemen Arab Republic.

#### Locusts

#### KINGDOM OF SAUDI ARABIA

Scattered desert locusts were reported from Lith, Qunfidah, and Jizzan in mid-December.

YEMEN PDR was reported clear up to 15 December; IRAQ was reported clear in November and December; KUWAIT was reported clear in October and November and OMAN was reported clear in October. There were no other reports from the region.

## SOUTH-WEST ASIA

## Meteorology

Light to moderate rainfall was reported from several localities in Baluchistan of Pakistan.

## Breeding Conditions

Breeding conditions remained unfavorable.

## Locusts

PAKISTAN was reported clear in December, INDIA was reported clear up to 15 January and IRAN was reported clear from September to December.

## FORECAST FOR FEBRUARY-MARCH 1988

Breeding will continue in Western Sahara, northern Mauritania and western Algeria and may lead to the formation of some small swarms. Some of these may move north-east but most are likely to breed again in the same general area where they were produced. Some swarms may cross the Sahara during periods of warm southerly winds.

In <u>West Africa</u> breeding will continue in northern Mauritania. Some small swarms may be produced in areas where no control has been possible. West-central Mauritania may be invaded by considerable numbers of adults from the east possibly including a few small swarms. Considerable number of adults will persist in north-east Mali and north-west Niger. Localised breeding will continue in north-east Mali.

In North-West Africa breeding will continue in Western Sahara and western Algeria. Most new generation adults are likely to stay in the same general area and are likely to mature and start breeding. Some adults, possibly including a few small swarms may move north-east into southern Morocco and north-west Algeria. The same areas may also be invaded by small swarms from south of the Sahara during periods of warm southerly winds.

In <u>Eastern Africa</u> small scale breeding will continue on the Red Sea coast of <u>Sudan and perhaps</u> adjacent areas of northern Ethiopia. Some adults may persist in the interior of Red Sea Province and in Nile Province.

In the <u>Near East</u> very small scale breeding is likely to occur on the southern Tihama of Saudi Arabia and possibly in adjacent areas of the Yemen Arab Republic.

In <u>South-West Asia</u> the situation will remain calm.

Rome 29 January 1988

