联合国粮食及农业组织 FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS ORGANISATION DES NATIONS UNIES POUR L'ALIMENTATION ET L'AGRICULTURE ORGANIZACION DE LAS NACIONES UNIDAS PARA LA AGRICULTURA Y LA ALIMENTACION منظمة الأغذية والزراعة للأمم المتحدة

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# Locusts, other migratory pests and emergency operations group

## DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 63 NOVEMBER - EARLY DECEMBER 1983

SUMMARY

A small swarm reached Fujeira, United Arab Emirates, from the east on 26 November and scattered day-flying adults were seen in Aden during the third week of November. Both reports may provide evidence of the extent of escapes from the summer breeding in India and Pakistan. Thirty-two swarms, swarmlets and concentrations were reported from the Nara Desert of Pakistan and were controlled, as were 392 hopper bands and groups of fledglings. Elsewhere, small numbers of adults were present in the People's Democratic Republic of Yemen, and small scale breeding was in progress in the Tokar delta of Sudan.

W/Q 6542

# DESERT LOCUST SITUATION, NOVEMBER - EARLY DECEMBER 1983

## WEST AFRICA

### Meteorology

The ITCZ, moving southwards with several waves, had its mean position at approximately 10°N. Showers, some thundery, were observed south of the ITCZ, mainly in coastal areas of the Gulf of Guinea. In the Sahel there was no significant rainfall, but further south there were important local falls, for example from north to south in Ivory Coast: 70 mm at Korhogo on 6 November and 36 mm at Abidjan on 9 November; also 65 mm at Bonthe (Sierra Leone) on 9 November. Relatively high pressure, ridges of 1015 mb, over the Sahara resulted in a very dry easterly or north-easterly airflow over Sahelian countries with dew points generaly lower than 5°C at 1200 GMT. Meanwhile, in coastal areas of Mauritania and Senegal humidity was often very high (dew point between 12° and 22°C at 1200 GMT) as a result of land-sea interaction with northerly winds and sometimes north-easterly components. At 1200 GMT temperatures were generally between 32° and 38°C in the Sahel and Sahara, but below 30°C in coastal areas of Mauritania and Senegal.

### Breeding conditions

No AVHRR imagery is available but no areas are likely to have been favourable for breeding.

### Locusts

No locusts were reported during the Summary period. During September immature and mature adults at densities of 10-15 per hectare were found in areas of green annual vegetation in wadis Afara 1955N/0055E and Irharrar 1953N/0105E in Mali. According to reports from nomads hoppers had been present in wadi Afara. In Tamesna adults at 0-2 per hectare were seen over 30-50 hectares in wadi Afara 1725N/0304E. Nomads reported hoppers with black markings at the beginning of September in wadi In Falfalen (1803N/0415E). In Niger, hoppers at densities of 30-40 per hectare were seen at Tassos (1944N/0819E) and Agalegne (1930N/0822E). Two immature adults were seen in wadi Indrar (2009N/0812E) and frass was seen under bushes. According to nomads, adults left the wadi on 6 September but ground surveys throughout the area failed to reveal them or evidence of day flight. There were no reports from southern or eastern Air.

In October immature and mature adults were found in several wadis in south-eastern Adrar des Iforas and Tamesna at densities of 5-50 per hectare over areas of 20-60 hectares where conditions were favourable for breeding locally. On 19 October green and yellow-green first to fourth instar hoppers at densities of 200-250 per hectare were found over areas of 4-5 hectares at the confluence of wadis In Oufassen and In Teksan (1745N/0320E) at at In Essalak (1845N/0227E). Pairing and hatching was also observed, together with herds of camels. In Niger copulating adults and some first to third instar green hoppers were observed at densities of 1-5 per hectare.

## NORTH-WEST AFRICA

### Meteorology

Eastward moving Atlantic disturbances, sometimes thundery, affected the Maghreb frequently. This influence was very variable: for example, on 1 November there were droplets of rain in Morocco but from 14 to 31 mm in Tunisia; on 7 November only droplets in Tunisia but 17 and 30 mm at Meknes and Tangiers respectively; on 5 November 13 mm at Beni-Mella and 31 mm at Meknes on 6 November; on 7 November the maximum rainfall in Algeria was 40 mm at Annaba. In Libya 10 mm was recorded at Tripoli on 1 November, 6 mm at Shahat on 5 November, 20 mm at Nalut on 9 November, 26 mm at Benina on 14 November, 17 mm at Agedabia on 20 November, 20 and 11 mm at Nalut on 24 and 25 November, 25 mm and 26 mm at Sahat on 27 November and 1 December. In the Sahara, 2 mm fell at Djelfa on 8 November, 3 mm at Ghardaia-Noumerate on 17 November and 4 and 6 mm at Djelfa on 21 and 23 November respectively. This unstable situation explains the important contrasts in temperature. At 1200 GMT maximum temperatures fluctuated between 18° and 28°C in coastal areas of the Maghreb and between 24 and 34°C in the Sahara.

### Breeding conditions

No AVHRR data are available.

### Locusts

No locusts were reported. MOROCCO was reported clear in October.

## EASTERN AFRICA

### Meteorology

GTS data for Sudan were only received in the Servizio Meteorologico, Rome for 9, 10, 11, 14, 16, 19, 21, 28 and 29 November and 7 December. These intermittent reports nevertheless confirmed that the weather was very warm with maximum 1200 GMT temperatures ranging from 28 to 38°C. Meteosat imagery showed clear skies over Sudan and northern Somalia, but active convective cells, often with thunder, over Ethiopia, Kenya, Tanzania and Uganda. GTS data confirmed this with the following examples: in Ethiopia, 30 mm at Neghelli on 8 November, 13 mm, 12 mm and 8 mm at Jimma on 10, 11 and 13 November respectively, 10 mm at Debra Marcos on 17 November, 16 mm at Gore on 18 November, 7 mm at Gondar on 20 November, 6 mm at Jimma and 8 mm at Gondar on 30 November; in Kenya the maximum daily rainfall was 56 mm at Meru on 7 November, on other days rainfall generally fluctuated between 5 and 25 mm; in Tanzania and Uganda there were frequent local showers, the maximum rainfall being 46 mm at Mwanza on 17 November.

1200 GMT temperatures ranged from 15°C in the highlands to 35°C on the coast in Ethiopia, from 25° to 35°C in Somalia and from 20°C in highland areas and during showers in Kenya, Uganda and Tanzania to 35°C in sunny weather.

Breeding conditions

No AVHRR imagery is available. The Red Sea coast of Sudan was generally dry but in the Tokar delta conditions were still favourable for laying locally in early December.

Locusts

SUDAN

During November scattered adults, some copulating, were seen in six blocks in the Tokar delta at densities of 180 to 720 per hectare over 550 hectares. First and second instar green and balck hoppers were seen in one block on 27 November at densities of 1-2 hoppers per plant hole. In early December late instar green, green and black, brown and brown and black hoppers and fledglings were seen at Hud Debba Selin, while mainly early instar green and green and black hoppers, and mature adults, some copulating, were seen at Hud Illiadebbai, at a maximum density of 140 per hectare.

SOMALIA

Two adults were caught at Hargeisa on 31 October.

There were no other reports from the Region.

## NEAR EAST

Meteorology

During the first week of November an anticyclone over northern Arabia resulted in north-easterly winds over the peninsula. From 8 to 21 November a depression extended from the Red Sea to Turkey giving rise to thunder and variable wind directions. From 22 November to 1 December the continental high pressure with north-easterly winds was established. The GTS provided the following reports of rain: on 29 November there was 18 mm at Rafha and 2 mm at Medina. Sandstorms were recorded at Aden and Hodeidah on 8 November and at Qassim on 16 November. Maximum temperatures at 1200 GMT were generally between 25°C in the north and 35°C in the south.

Breeding conditions

No AVHRR imagery is available. The Tihama of Saudi Arabia and the People's Democratic Republic of Yemen were unfavourable for breeding. The Batina coast of the United Arab Emirates was reported to be suitable for breeding in late November.

Locusts

UNITED ARAB EMIRATES

A small swarm settled at Fujeira on 26 November and later scattered in cultivations.

OMAN

Scattered adults were seen in two wadis west of Thumrait (1740N/5402E) on 19 October.

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

Isolated adults were seen flying over Sheikh Othman by day during the third week of November.

Isolated adults were seen at Hassaiy area of Musaynah (1505N/5040E) on 10 November, and isolated adults were reported by a scout at Fajarah (1259N/4416E) on 16 November.

KINGDOM OF SAUDI ARABIA

During October a group of locusts were seen at Najran and scattered adults were seen at Balasmar and Balahmar, Abhar (near Jeddah) and at Taff at night.

There were no other reports from the Region.

## SOUTH-WEST ASIA

### Meteorology

As reported in Summary No. 62, a very stable anticyclonic situation was gradually developing from Afghanistan to north-west India, while a thundery depression was present over southern India, with an extension to north-east India and Bangladesh. Consequently there was a strong north-easterly wind flow over the summer breeding area of north-west India and Pakistan, sometimes with thundery showers in the northern mountains. Information from the Pakistan Plant Protection Department confirmed there was a severe dust-storm from the north-east at Kadenwari in Sukkur on 8 November. Temperatures at 1200 GMT were generally between 30° and 35°C at Karachi and Chhor, and between 25° and 30°C at Sukkur and Bahawalpur. Information from the Indian Plant Protection Department confirmed dry weather and maximum temperatures between 30° and 35°C in Rajasthan and Gujarat.

### Breeding conditions

No AVHRR imagery was available. No rain was reported from either summer or winter breeding areas and conditions were almost certainly unfavourable for breeding.

### Locusts

PAKISTAN

Between 30 October and 12 November 32 immature swarms, swarmlets and adult groups entered the Nara desert from the east, the maximum size being 6 kilometres x 4 kilometres. All were controlled by aerial and ground spraying and by dusting. 392 bands and concentrations of fifth instar hoppers and fledglings were also controlled in the Nara desert before operations were concluded on 8 November. 5322 litres of 10% dieldrin, 1395 litres of 96% fenitrothion and 2274 kg of 12.5% BHC dust were applied.

During the second half of November scattered adults at a maximum density of 1200 per square kilometre were reported from eight localities in the Nara desert.

No locusts were reported from Baluchistan.

INDIA

During the first fortnight of November scattered adults were seen at 20 localities in Bikaner, Jodhpur and Jaisalmer districts, the maximum density being 1500 per square kilometre, and one green fifth instar hopper was seen at Chaba (2621N/7208E) on 2 November.

During the second fortnight scattered adults were seen at 8 localities in Jaisalmer district and at one locality in Banaskantha district, the maximum density being 1575 per square kilometre.

No locusts were reported in AFGHANISTAN in October.

There was no report from IRAN.

## FORECAST FOR JANUARY-FEBRUARY 1984

Breeding is likely to occur in coastal and subcoastal areas around the Red Sea and Gulf of Aden. Early winter rainfall has been below average and the breeding is likely to be on a small scale initially. Breeding may also commence in Eastern Arabia and in coastal areas of south-east Iran and Baluchistan. Movements of adults are likely to be restricted by low night temperatures but during periods of warm southerly winds there may be more substantial migrations on both sides of the Red Sea.

In South-West Asia breeding may commence in coastal areas of Baluchistan in Pakistan and in south-east Iran towards the end of the forecast period. Adults are likely to be present in many areas of Baluchistan and probably also in Baluchistan-Sistan of south-east Iran. Considerable numbers of adults will be present in the Bahawalpur, Nara, Khipro and Tharparkar deserts of Pakistan and in Rajasthan in India.

In the Near East breeding is likely to commence towards the end of the forecast period in the United Arab Emirates and possibly in northern and eastern parts of Oman.

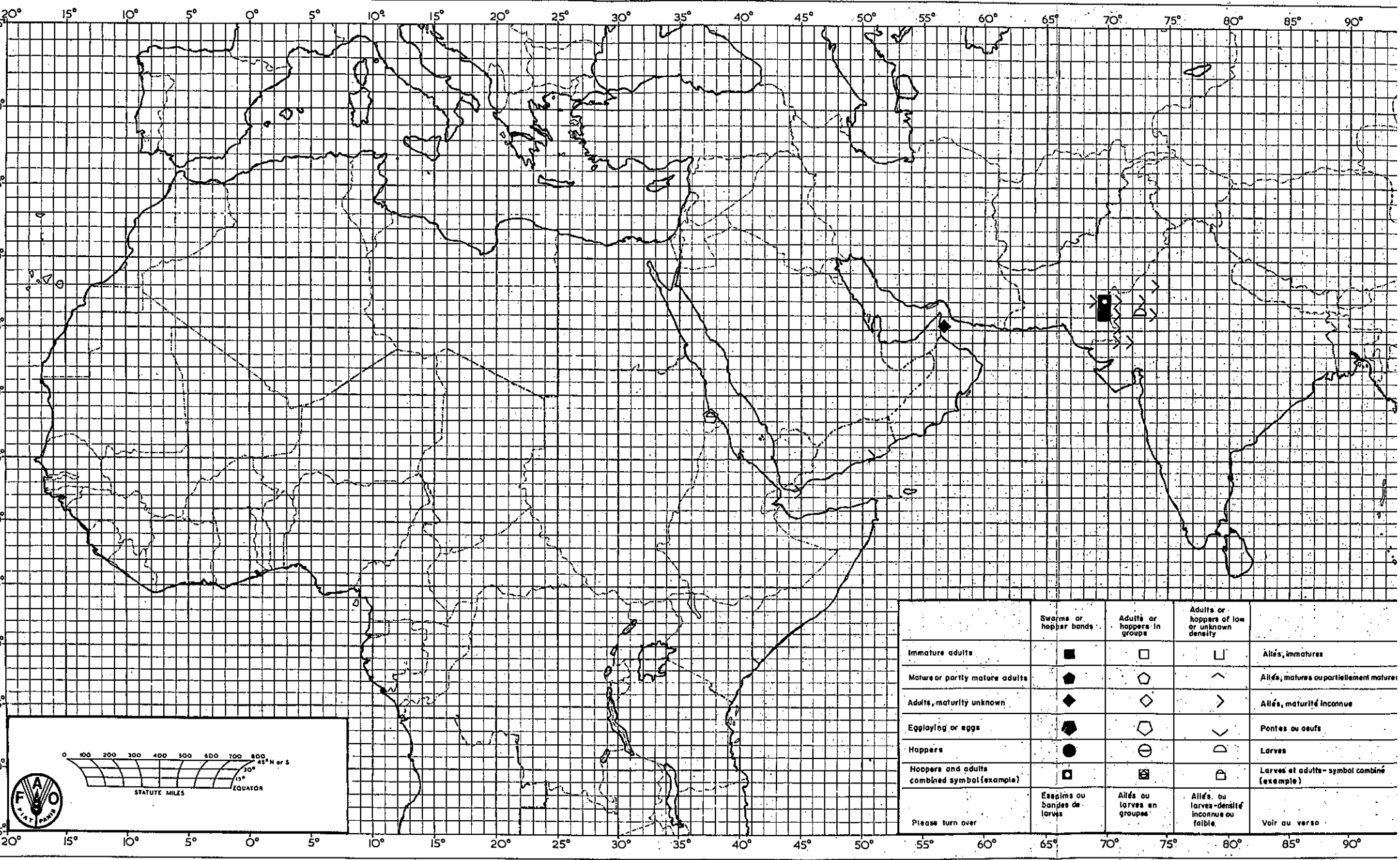
Breeding is likely to occur in coastal and subcoastal areas of western Saudi Arabia, the Yemen Arab Republic and the People's Democratic Republic of Yemen which have received winter rains. There may be significant northwards movement of adults during periods of warm southerly winds.

In Eastern Africa breeding will continue in the Tokar delta of Sudan and is likely to start in other coastal areas of Sudan and Ethiopia which receive winter rains but it will be on a small scale. Considerable numbers of adults may have reached Djibouti and northern Somalia from the northeast and they are likely to breed in coastal and subcoastal areas.

In West Africa small numbers of adults will be present in restricted localities in the southern Sahara.

In North-West Africa small numbers of adults are likely to be present in the Algerian Sahara but these will probably not breed before the end of the forecast period. Residual populations of adults are likely to be present in some oases in Libya.

Rome
19 December 1983




| | Swarms or hopper bands | Adults or hoppers in groups | Adults or hoppers of low or unknown density | |
|---|---|---|---|---|
| Immature adults | ■ | □ | ⊔ | Ailés, immatures |
| Mature or partly mature adults | ⬟ | ⬠ | ^ | Ailés, matures ou partiellement matures |
| Adults, maturity unknown | ◆ | ◇ | > | Ailés, maturité inconnue |
| Egglaying or eggs | ⬢ | ⬡ | ∨ | Pontes ou oeufs |
| Hoppers | ● | ⊖ | ⌓ | Larves |
| Hoppers and adults combined symbol (example) | ◘ | ▣ | ⌂ | Larves et adultes - symbol combiné (exemple) |
| Please turn over | Essaims ou bandes de larves | Ailés ou larves en groupes | Ailés ou larves - densité inconnue ou faible | Voir au verso |