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Locusts, other migratory pests and emergency operations group

DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 106

JUNE - EARLY JULY 1987

SUMMARY

A dangerous situation has developed in northern Ethiopia where numerous swarms produced on Red Sea coastal plains moved initially westward into the highlands and subsequently southwards, matured and laid. There was widespread breeding in the western lowlands, the highlands and eastern coastal areas of Eritrea. In Sudan widespread breeding commenced in the Northern and Eastern Regions. Breeding has started in western Sudan and eastern Chad and may be widespread. Adults have been reported in western Chad and Mali and hoppers in Niger and are probably much more widespread than has been reported.

Unless all these infestations can be found and controlled effectively there is a strong possibility that a major plague will develop.

Control operations continued in Saudi Arabia. Small number of adults were present in PDR Yemen. There were widespread scattered adults in Pakistan and India and limited pre-monsoon breeding in India.

Late Reports:

CHAD

Pilot encountered flying locusts, believed to be Desert Locusts, at 300 metres over Lake Filtri (1257N/1720E). Scattered adults seen by ground team at Moyto (1235N/1635E) and Djedda (1325N/1826E).

NIGER

In eastern Air 900 hectares of dense hopper infestations being treated by aircraft.

W/S4872/E.

WEST-AFRICA

Meteorology

During the first two weeks of June the Intertropical Front lay between 13 degrees and 18 degrees north; in the third week it lay between 16 and 21 degrees north and in the fourth week it lay between 13 degrees in western coastal areas and at 20-21 degrees over Mali and eastern Mauritania. Rainfall was generally below normal. The only station recording significant rainfall in Desert Locust breeding areas was Nema which reported 40 mm on 21 June, but Meteosat imagery indicated the probability of widespread rainfall in Chad at the end of the first decade of June.

Breeding conditions

Conditions will have become favourable for breeding in parts of northern and eastern Chad, particularly around 16°N, 22°E and around Oum Chalouba (1550N/2040E), where NOAA/AVHRR imagery shows substantial areas of green vegetation, and locally in Air and the Talak plains in north-west Niger, in the Adrar des Iforas, in north-east Mali and around Nema in eastern Mauritania.

Locusts

MALI

Scattered mature solitarious adults were seen in the Balle area (1520N/0920W) in early July.

NIGER

Hoppers were reported from Air in early July but no details are available.

CHAD

Adults were reported from Iriba (1507N/2215E) and between Adré (1328N/2212E) and Guéráda (1429N/2205E) in the first two decades of June.

ATLANTIC OCEAN

One grey locust was reported by the M.V. Soren Larsen at 1415N 2516W at 1230 GMT on 22 June.

In early July copulating adults at a density 15,000 per hectare and hopper bands were reported in several wadis in the Fada (1714N/2133E) and Kalait (1550N/2054E) areas, and "important" populations were reported from Massenya (1150N/1619E).

NORTH-WEST AFRICA

Meteorology

From Meteosat imagery it appears that light rain fall in southern parts of the Western Sahara and in south-east Morocco during the second decade of June, while in the third decade and the first decade of July there was frequent and heavy rain in eastern central and western Algeria and western Libya, notably between 26 and 29 June.

Breeding conditions

NOAA/AVHRR imagery indicates that breeding conditions were favourable in the Erg er Raoui area 29°N, 3°W in late June.

Locusts

No locusts were reported.

EASTERN AFRICA

Meteorology

There was widespread and heavy rainfall in Northern Darfur, Northern Kordofan, Khartoum and White Nile Provinces of Sudan in early June. There was quite widespread rain in eastern Sudan and north-west Ethiopia during the last two decades of June and heavier, more widespread and frequent rain during the first decade of July.

Breeding conditions

As a result of the widespread and heavy rains during May, June and early July conditions will have been favourable for breeding in many parts of the summer breeding areas.

Locusts

SUDAN

NORTHERN DARFUR PROVINCE

A ground team started operations in the north-western part of the Province on 24 June. It reported that the area had been invaded by swarms in early June, and on the current situation as follows: copulating adults over an area of 0.5 square kilometres at Ghadir (1500N/2309E); egg-fields were found in an area of 1 square kilometre at Gurba (1507N/2406E); at Buba (1525N/2328E) a settled mature swarm measuring 3 square kilometres was seen, copulating and egg-laying adults were seen over an area of 0.5 square kilometres. Groups of

newly hatched hoppers were seen over an area of 1 square kilometre. At Guktara (1510N/2401E) large dense first instar hopper bands were found over an area of 2 square kilometres. At Oro (1506N//2337E) small medium density first and second instar hopper bands were found over an area of 2 square kilometres. At Wadi Abu Dulu (1500N/2410E) egg-fields were found over an area of 1.5 square kilometres. In the Bhasimba-Wadi Sayra area (1511N-2318E) thin density swarmlets were seen flying low.

There were also unconfirmed reports from Wadi Howar.

NILE PROVINCE

On 4 June a 2 square kilometre immature swarm was seen flying from north to south at Hager Eltair (1633N/3255E) and on 8 June copulating groups were reported at El Ngaa (1655N/3315E) over an area of 4 square kilometres.

In mid-June mature groups of adults were found in the Wadi Umm Arda and Wadi Abu Hamad (1605N/3302E) areas over 2 square kilometres and control operations commenced in the Wadi Abu Hashiem and Wadi Shilekha (1605N/3326E) areas.

On 30 June first and second instar hoppers were found over an area of 400 hectares at Wadi El Fikair in the Shendi area.

In the first decade of July scattered immature and mature adults were seen over an area of 1,500 square kilometres between Umm Shadida (1635W/3515E) and 1650N, 3555E. In the Hassaniya small number of first to third instar hopper were seen over an area of 60 square kilometres in the Goz Abu Dulu (1735N/3255E), Abu Halfa (1745N/3250E) and El Garaa (1740N/3255E) areas.

WHITE NILE PROVINCE

On 13 June mature adults were seen at a density of 3,000 per hectare at Esh Shuqeiq (1429N/3155E). In early July small groups of mature adults and first and second instar hoppers were found at Um Nabaga (14442N/3140E).

KASSALA PROVINCE

On 10 June medium density groups of adults were found at Wadi Odi (1655N/3634E) over an area of 10 square kilometres and at Umm Adam (1705N/3555E) over an area of 3 square kilometres. Copulating pairs were present. In late June hoppers at high densities were reported in Wadi Odi, and in the Ingwatiri area (1655N/3603E) groups of first to third instar hoppers were found. Control operations were in progress.

Groups of copulating adults were found in Wadi Musran (1520N/3520E) in late June.

GEZIRA PROVINCE

Scattered adults were reported from several places around Abu Quta (1456N/3244E) in early June.

RED SEA PROVINCE

In early July groups of fourth and fifth instar hoppers were found at Khor Kerudeb (1733N/3612E) over 2 square kilometres; at Khor Abu Salim (1720N/3605E) over 12 square kilometres, with fledglings, at Khor Bretik (1742N/3547E) over 30 square kilometres, with fledglings and at Khor Derbab (1746N/3601E) over 1 square kilometre with fledglings.

ETHIOPIA

Numerous swarms were reported from Eritrea, Tigray and Wollo Provinces and breeding became more widespread. The following swarm sightings were confirmed:

| | |
|---------|-----------------------------------------------------------------------------------------|
| 3 June | Ala Plain (1512N/3905E) 46 1 96% Fenitrothion applied. |
| 7 June | El Abaret (1542N/3828E) 15 sq km mature swarm 325 1 Fenitrothion ULV applied. |
| 9 June | Tera-Immi (1502N/3942E) 4 sq km dense mature swarm 190 1 Fenitrothion ULV applied. |
| 11 June | Abrascico (1532N/3845E). |
| 15 June | Durko (1444N/3850E) 6 sq. km, thin-medium density, mature 300 1 Fenitrothion applied. |
| 16 June | 1. sq km swarm sprayed with 100 1 Fenitrothion ULV. |
| 17 June | 4 km west of Adi Quala (1439N/3846E) 6 sq km swarm sprayed with 120 1 Fenitrothion ULV. |
| 18 June | Anager (1455N/3832E) 6 sq km, sprayed with 150 1 of Fenitrothion ULV. |
| 20 June | east of Senafe (1445N/3930E) 8 sq km, mature, sprayed with 150 1 Fenitrothion ULV. |
| 21 June | Tera-Imni (1501N/3838E) 4 sq km, 110 1 Fenitrothion 96% applied. |

21 June Adi-Mongonti (1501N/3847E) 20 sq km, 550 l Fenitrothion 96% applied.

22 June Asmara, 30 sq km, 400 l Fenitrothion 96% applied. This swarm closed the airport.

23 June north-west of Adi Ugri, a mature medium density swarm was controlled with 150 l Fenitrothion 96%.

24-30 June Mekele, mature swarm, controlled.

29 June Enticcio (1418N/3909E) 6 sq km, mature, controlled with 250 l Fenitrothion.

30 June 40 km south-west of Mekele 0.3 sq km.

3-4 July Mekele, 15 sq km, sprayed with 1,520 l Fenitrothion and by 5,000 people.

8 July Lake Ashange (1235N/3932E) 30 sq km, flying South-East.

In addition there have been numerous other reports of swarms, for which details are lacking, from Barentu (5 June) western lowlands (June), Mansura Valley (10 June), Raya and Azebo Awraja in Tigray Province (late June), Wag and Lasta Awrajas in Wollo Province (late June), east and west of Socota early July.

Breeding has continued in the coastal and sub-coastal plains of Eritrea and the following control operations were reported in late June and early July:

Wadi Adilo (1550N/3924E); 27 June, immature swarmlet 2 km x 0.5 km, sprayed with 160 l Fenitrothion. Surrounding area sprayed with 240 l of Ensodil.

Wadi Emberemi; 27 June 140 l Ensodil applied against low density adults.

Wadi Wachiro, 28 June, 100 l Ensodil applied.

Akbanazuf; 28 June 480 l Ensodil applied over 3,200 hectares containing late instar hopper bands. On 29 June a further 480 l applied over an area of 32 sq km on western edge of Akbanazuf, and a further 240 l of Ensodil applied over 12 sq km at Akbanazuf. On 30 June-1 July two aircraft applied 1,040 l Ensodil over 44 sq km. Control continued. There were confirmed hopper bands in the western lowlands of Eritrea in early July.

There were no reports from DJIBOUTI or SOMALIA.

NEAR EAST

Meteorology

A tropical storm developed over the Arabian Sea with its centre at 16°N 58°E at 00:33 hours GMT on 9 June. It subsequently moved north-west and may have given rain between Masirah and Salalah and up to 200 kilometres inland. There were widespread rains in the interior of Yemen PDR during the first half of June, causing floods in wadies.

Breeding conditions

Conditions will have become favourable for breeding in parts of the interior of Yemen PDR and may have become favourable in Oman.

Locusts

KINGDOM OF SAUDI ARABIA

In early June hopper infestation extended over 500 sq km between Shaqqah Yamaniyah and Wadi Doga. These were being controlled by two helicopters and control operations continued up to 12 July.

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

Solitarious adults were found at Wadi Al-Fajrah (1258N/4419) on 8 June and at Masib (1328N/4631E) on 21 June.

These were in the reports from the Region.

SOUTH-WEST ASIA

Meteorology

There was variable rainfall in the summer breeding area. Bikaner recorded 94.2 mm during the first half of June, Jodhpur 41.2 mm and Ganganagar 9.8 mm. In Pakistan there was light rain at Bahawalpur on 12 June.

Breeding conditions

Conditions will have become favourable for breeding following the good rains of May.

Locusts

PAKISTAN

In the first fortnight of June adults were found at 36 localities in Uthal, Turbat, Pasni, Panjgur, Khuzdar, Nushki, Sukkur, Bahawalpur and Rahimyar Khan areas the maximum density being 1,500 per sq km at

Chenwala (2947N/7225E) and Kahrira (2936N/6535E). In the second fortnight the maximum density was 1,600 per sq km at Chaniawala (2847N/7223E).

INDIA

In the first half of June scattered adults were found at 16 localities in Jodhpur, Jaisalmer, Barmer, Bikaner, Nagaur, Ganganagar and Banasantha districts, the maximum density being 300 per sq km at Pariyal (2713N/7243E) on 13 June.

In the second half of June adults were found at 55 localities, the maximum density being 1,050 per sq km at Grandhi (2748N/7232E) on 13 June.

Solitary second to fifth instar hoppers were found at three localities in Bikaner district.

FORECAST FOR AUGUST-SEPTEMBER

There will be widespread breeding in the main summer breeding areas extending from Mauritania to north-west India. Unless the hopper infestations can be controlled effectively there could be widespread swarm formation towards the end of the forecast period.

In West Africa, breeding is likely to be widespread in eastern Chad and result in the formation of hopper bands and swarms. The latter may breed again in the same general area or they may move west to Niger and or Mali. Breeding will become more widespread in Air and Tamesna in north-west Niger, where local adults may be augmented by larger numbers of adults from the east. In Mali and Mauritania local adults will start to breed and may be joined by larger numbers of adults from the east.

In North-West Africa considerable numbers of adults may reach the extreme south of Algeria and start to breed.

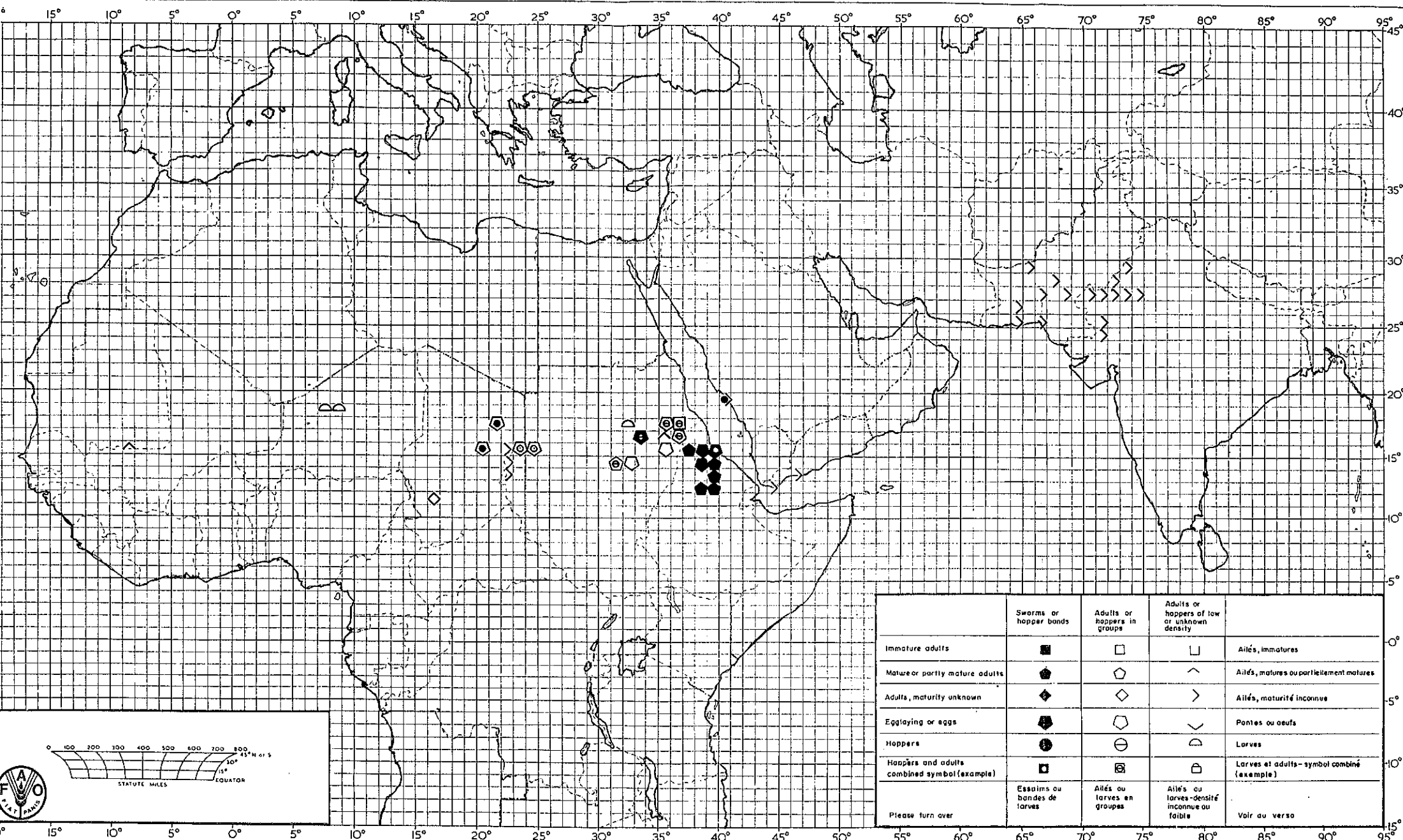
In Eastern Africa mature swarms may continue to move south in the northern Ethiopian highlands. Breeding will be widespread in the valleys in the highlands and in the western lowlands of Eritrea. Breeding may also continue on the coastal and sub-coastal plains of Eritrea. New generation adults will start to appear at the beginning of the forecast period and are likely to include swarms. Most of the adults produced in August are likely to breed again in the same general area but those produced in September are likely to move south and south-east towards Hararghe and may be joined by swarms from Sudan.

In Sudan there will be widespread breeding in the Northern and Eastern Regions and in Northern Darfur. Swarms are likely to be produced in areas of undetected breeding. Adults produced in August are likely to breed in the same general area but those produced in September in Darfur are likely to move west while those in central and eastern areas are likely to move either north-east towards the Red Sea coast or east and south-east into northern Ethiopia.

In the Near East breeding will terminate in the Tihama of Saudi Arabia and small scale breeding will occur in coastal areas of Yemen PDR. It is just possible that swarms may reach the Tihama from the west at the end of September. Breeding may occur in the Jaddat al Harasis in Oman.

In South-West Asia breeding will be widespread in Rajasthan and adjacent areas of Pakistan. Hopper groups may form in restricted areas and a second generation of breeding may occur if the monsoon rains continue into September.

Rome
17 July 1987



| | 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 |
| Egg laying or eggs | ⬢ | ◻ | ∨ | Pontes ou oeufs |
| Hoppers | ● | ○ | ◐ | Larves |
| Hoppers and adults combined symbol (example) | ◼ | ◻ | ◻ | Larves et adults - 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 |

