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Locusts, other migratory pests and emergency operations group

DESERT LOCUST SITUATION SUMMARY AND FORECAST

NO. 96 AUGUST - EARLY SEPTEMBER 1986

SUMMARY

There has been widespread breeding in the People's Democratic Republic of Yemen but breeding in Eritrea was on a considerably smaller scale than earlier unconfirmed reports had suggested. There has been breeding in Sudan, Niger, where a swarmlet was controlled, and in India, where aerial and ground control measures were undertaken.

W/S1609

WESTERN AFRICA

Meteorology

The period was characterized by the very northerly position of the Intertropical Front, which reached 24°N over the Western Sahara and Mauritania and lay between 18° and 20°N over Mali and Niger. This northerly position was associated with several "pulls" of the FIT across the Sahara and was due to a weakening of the Azores anticyclone and to the presence of low pressure over North-West Africa and the Western Mediterranean. As reported in Summary No. 95, during the first decade of August, Atar received 61mm, Akjoujt 23mm, Boutilimit 25mm, and Aioun 41mm, all equal to or above the long-term average. During the second decade Agadez reported 14mm and Matam 41mm, while during the third decade Nema reported 48mm, Nara 45mm, Tombouctou 27mm, Kiffa 17mm and Matam 16mm. To the north of 17°N Aguelhoc received 34mm during August, Tessalit 15mm, Tin Zaouaten 10mm, Fanfi 34mm, Bir Moghreim 5mm, Zouerate 1mm, Atar 26mm, Kiffa 50mm, Aioun 23mm, Nouakchott 8mm, Agadez 52mm, Anou Araren 63mm, Iferouane 16mm, Arlit 11mm, and In Abangharit 32mm.

In the first decade of September Agadez recorded 14mm, Kiffa 12mm and Matam 81mm.

Maximum temperatures were in the region of 40°C in the interior and 30°C in coastal areas.

Breeding Conditions

According to NOAA/AVHRR imagery the most favourable breeding conditions were in the Plaine de Talak in western Air in Niger. Other areas where conditions were probably favourable were in wadis draining westward into the Plaine de Talak, eastern Tamesna, Anou Zeggeren extending almost to In Abangharit, north of Malian Tamesna, western Adrar des Iforas, the Tilemsi Valley, central and southern Brakna and Gorgol in Mauritania.

Locusts

NIGER

On 21 September three locally produced swarmlets measuring 6, 15 and 8 hectares were found in Air and were controlled. Earlier, the OCLALAV report for August stated that adults were present at densities of less than one per hectare in Air and Tamesna. An infestation was reported east of Iferouane in Air. According to OCLALAV the reports of hoppers near Arlit and Agadez (Summary No. 95) should be regarded as unconfirmed.

MALI

Fledgling at densities of 100 per hectare were seen in Oued Edjerer (1826N/0205E) over 25 hectares, mixed with Oedaleus johnstoni and Oedaleus senegalensis. Elsewhere adults were present at densities of less than 5 per hectare.

The report of Desert Locusts at Bôl in Chad reported in Summary No. 95 is now thought to have referred to Anacridium. There were no reports from MAURITANIA.

NORTH-WEST AFRICA

Meteorology

The weather was generally warm and dry, except for some thundery showers associated with disturbances. The influence of the Azores high was rather weak apart from some travelling ridges of high pressure. On the other hand low pressure cells associated with those over the western Mediterranean were frequent and resulted in the "pulls" of the Inter-tropical Front mentioned under West Africa. They were clearly shown on Meteosat imagery. No significant rain was reported from the Sahara.

Maximum temperatures exceeded 40°C, but were only 20° - 30° along the Atlantic coast of Morocco.

Breeding conditions

According to NOAA/AVHRR imagery conditions were generally unfavourable for breeding in the recession area.

Locusts

MOROCCO and ALGERIA were reported clear in August.

According to a late report from ALGERIA the following control operations were carried out in May in addition to that reported in Summary No. 93: Oued in-Tabechar (2107N/0153E) 400 litres of Malathion were applied over 60 hectares; Oued in-Tabechar (2105N/0157E) 80 litres of Malathion over 10 hectares; Oued in-Tabechar (2101N/0156E) 400 litres of Malathion over 40 hectares.

EASTERN AFRICA

Meteorology

The ITCZ lay to the north of Khartoum up to and including the second decade of September. To the south of the ITCZ there were moderate to good rains, Damazine recording 60mm on 22 August and heavy rains were reported in eastern and central areas on 18 August. In Ethiopia there was strong thermo-convective activity over the highlands which at times extended to the Red Sea coast. On 30 August Djibouti recorded 15mm of rain. A line of cumulonimbus clouds visible on Meteosat imagery marked the position of the Red Sea Convergence Zone. Maximum temperatures ranged from over 40°C in the interior of Sudan to 20 - 25°C in the Ethiopian highlands.

Breeding conditions

According to NOAA/AVHRR imagery conditions were favourable for breeding up to about 15°N across Sudan, extending to 16°N in Darfur and Kassala

Provinces. They were also favourable in the Musmar area of Red Sea Province. Conditions continued to be favourable in the highlands of Northern Ethiopia, in the Tokar delta, in Southern Eritrea, parts of Djibouti and probably along the northern coastal plains of Somalia east of Berbera.

Locusts

SUDAN

In Kassala Province, fifth instar hoppers marching out of Eritrea and adults were controlled over 2 square kilometres at Molasse (1526N/3635E) and hoppers of different instars were controlled 30 square kilometres at Hafra (1529N/ 3634E) as reported in Summary No. 95. On 28 August further infestations of all stages were found at Jebel Tamarat (1527N/3637E) and Jebel Kabon Sherifi (1529N/3631E). Baiting and spraying commenced against marching groups of late instar hoppers and adults. By 16 September 90% of the infested area had been cleared.

In the Red Sea Province around Musmar groups of copulating adults were found at two localities over 18 square kilometres and medium density third to fourth instar hoppers at one locality during the first decade of September.

In Nile Province low density adults were found at Wad Hamid (1630N/ 3250E), Qoz El Harr and Bir El Melih in the Shendi area in the first decade of September.

In Northern Kordfan Province a scout reported solitary mature adults at El Hobagi (1558N/3040E) in the first decade of September.

In North Darfur Province small numbers of adults were found around El Fasher (1343N/2520E) in the second decade of September.

ETHIOPIA

On 7-8 August a DLCO-EA aircraft sprayed within an area of 2,400 square kilometres of green vegetation on the Red Sea coast between Emberemi and Cam Cewa, north-west of Massawa, approximately two-thirds barrier spraying and one-third target spraying. Later, a helicopter survey found only 5-7 hoppers and immature adults per hectare in the area. Ground teams sprayed 800 ha along the Red Sea and 700 ha along the Asmara - Massawa road. At Ghinda adults were reported at 150 per square meter.

Following reports of Desert Locusts from the Gash and Setit region a helicopter survey was flown from Asmara to Tessenei and a ground survey was made around the Aligider State Farm but no Desert Locusts were seen.

As reported in Summary No. 95, a telex from Khartoum reported fifth instar hoppers and adults marching out of Eritrea west of Sabderat and later bands of mixed instar hoppers in the same area.

The Sudan Locust Report No. 8 of 11 September reported Desert Locust hoppers in Wadi Saua (1545N/3656E - 1545N/3659E).

Subsequently there have been no further reports of Desert Locusts in Ethiopia and it appears that the infestations around Sabderat were rather restricted in extent.

There were no reports of Desert Locusts from DJIBOUTI, SOMALIA, KENYA, UGANDA or TANZANIA.

NEAR EAST

Meteorology

The large heat low pressure area persisted over the Arabian peninsula and the ITCZ and air-sea-land interactions resulted in some significant thermoconvective rain over highlands of the Hijaz, the Yemen Arab Republic, the United Arab Emirates and Oman and, from 10 August, along the Red Sea. Daily rainfall totals recorded by the GTS included 47mm at EL Baha on 1 August, 29mm at Sur on 11 August, 15 and 20mm respectively at Salalah and Saiq on 27 August. The Red Sea Convergence Zone was generally at about 15°N.

Breeding conditions

As reported in Summary No. 95, there were good rains in the Ataq-Nisab-West Hadharamaq area on 28-30 July which gave rise to favourable breeding conditions. Similar conditions also developed in the Rub al Khali at about 17°N/48°E, 19°N/52°E and 21-22°N/53-54°E.

Locusts

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

As reported in Summary No. 95 a medium density population of mature adults was observed copulating and laying at Ash-Shubaykah (1440N/4648E) on 3 August. Later control operations were in progress over 40 square kilometres in Wadi Therab (1433N/4706E). Also on 3 August a low density population of mature adults was seen in Wadi Qaudha (1546N/4817E). In early September control was in progress against hoppers in this area. On 16-17 August medium density mature adults and patches of mixed solitary and gregarious hoppers of different instars were seen in Wadis north of Husn Bilad (1332N/4647E) and in Wadi Maseb (1330N/4632E). Ground control was in progress.

In early September there were reports of locusts at various densities from eastern PDR Yemen. Ground survey teams found adults at high densities for 60 kilometres in Wadi Sa'af (16°N/51°E) where there had been no rain, and some breeding near Hayrut (1720N/5242E). Ground control was in progress.

YEMEN ARAB REPUBLIC

A small swarm was seen at Zebid on 10 August, which later flew east and scattered in the foothills. On 18 and 25 August scattered mature

adults were found in Wadis Mawr, Hayran, Habl and at Abs at densities of 5-15 per 100 metres traverse.

KINGDOM OF SAUDI ARABIA

According to a late report, very small groups of adults were controlled in Wadi Dawasir in July using 360 litres of Fenitrothion, and scattered small groups of adults totalling 650 hectares were controlled in Quwaiya in July and August using 250 litres of Fenitrothion and 250 Kg of BHC.

OMAN was reported clear in June.

SOUTH-WEST ASIA

Meteorology

The vast low pressure area over India maintained a moist airstream over the summer breeding area during August. There was widespread moderate to heavy rain during the first half of the month, Bahawalpur recording 133mm, Sukkur 61mm, Bikaner 41mm on 7 August and Chhor-48mm on 8 August. The second half of the month was generally dry. There were moderate rains in northern Cholistan on 11 September and heavy rains on 13-14 September.

Breeding conditions

As a result of the widespread moderate-heavy rains in late July and early August there were favourable breeding conditions in most parts of the summer breeding area.

Locusts

PAKISTAN

Scattered adults were reported from 53 localities in the Uthal, Mirpur Khas, Sukkur, Bahawalpur and Rahimyar Khan areas during the first half of August, the maximum density being 1,500 per square kilometre at Renhal (2813N/7158E) on 4 August. Small number of first and second instar hoppers were seen at Ghorowari and Jangitori on 6 August.

In the second half of August scattered adults were seen at 54 localities in the Uthal, Mirpur Khas, Sukkur, Bahawalpur and Rahimyar Khan areas, the maximum density being 2,850 at Lundion (2650N/6836E) on 26 August. First to fourth instar hoppers were found in low lying areas of green vegetation in Khenju, Tadjal and Kadenwari in the Nara desert, in Islamkot in the Tharparkar desert and at Renhal in Cholistan, the maximum density being 15 per bush at Pahara (2642N/6848E) on 26 August.

INDIA

Scattered adults were reported from 82 localities in Bikaner, Jaisalmer, Barner, Jodhpur, Ganganagar, Jalore and Banaskantha districts during the first fortnight of August, the maximum density being "countless" at Surjara (2804N/7249E) on 7 August. Small patches of hoppers and some fledglings were found at Surjara, Khari (2759N/7258E)

and Bachasar (2758N/7311E) on 6-7 August at a maximum density of 100 hoppers per bush. Control operations were conducted from 8 to 15 August using 4,650 kg of 10% BHC dust. The total area treated was 186 hectares.

In the second half of August dusting operations were mounted in nine localities in Bikaner district using 26,099 Kg of 10% BHC dust. In addition barrier spraying by air was undertaken against first to fourth instar hoppers at two localities in Jaisalmer district using 1,500 litres of 18% Dieldrin to treat 3,000 hectares. A further 100 litres were applied by exhaust nozzle sprayers to treat 1,000 hectares. Solitary first to fourth instar hoppers were also found at two other localities. Scattered adults were found at 80 localities in Bikaner, Jaisalmer, Jodhpur, Nagaur, Ganganagar and Churu districts, the maximum density being 1,500 per square kilometre at Delana (2834N/7338E) on 17 August.

AFGHANISTAN was reported clear in August.

FORECAST FOR OCTOBER-NOVEMBER

Congregans breeding has occurred in Niger, Sudan, Ethiopia, Yemen PDR and India. Control operations are in progress but some small swarms may be produced. Most will move towards winter-spring breeding areas. Breeding is likely to commence in coastal areas on both sides of the Red Sea and Gulf of Aden.

In West Africa undetected congregans breeding resulted in the production of at least one swarmlet in Air in mid-September which has been controlled but others may have been produced. These may breed again locally or emigrate north-west across the Sahara. Congregans breeding is also likely to occur in the Adrar des Iforas, Tamesna of Niger and Mali, the Tilemsi Valley and Timetrine and in central-southern Mauritania.

In North-West Africa considerable number of adults may reach central and western Algeria and possibly south-eastern Morocco if populations in Niger are not adequately controlled. They could include a few swarmlets or, more likely, groups. A substantial invasion from Sudan is unlikely.

In Eastern Africa gregarious breeding in Western Eritrea has apparently been controlled and medium density breeding in Sinkat district is being controlled. Congregans breeding may be rather widespread in Sudan, extending westwards to Darfur. Any adults produced in western Sudan, which may include groups, are likely to disperse crossing the Sahara; most of those produced in the east, which may also include groups, are likely to move to the Red Sea coast of Sudan and Ethiopia where they will start to breed but some may move south-east towards the Horn of Africa. Adults may reach the northern coastal plain of Somalia from Arabia and could start to breed, if there are early winter rains.

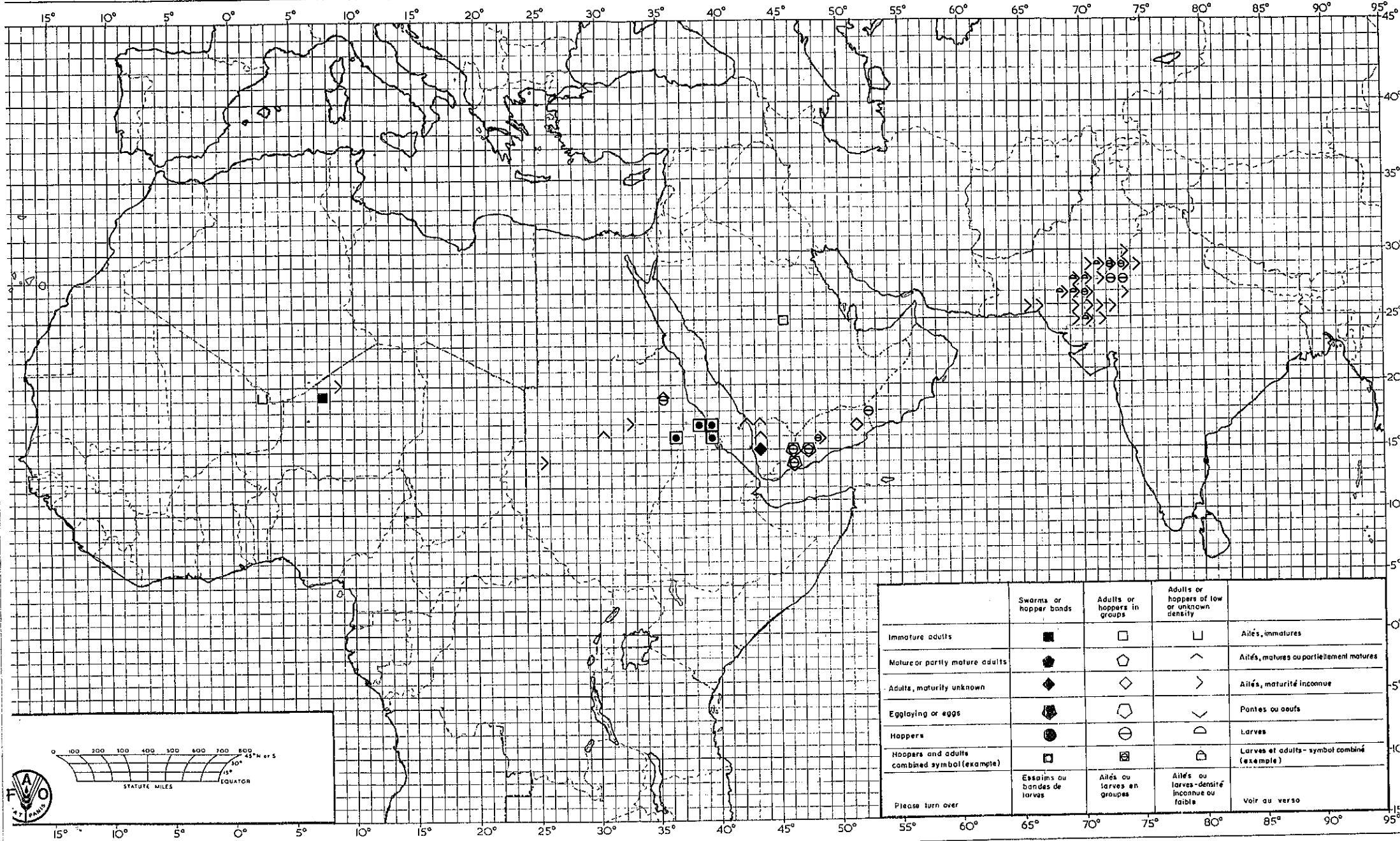
In the Near East considerable numbers of adults, possibly including one or two small swarms may be produced in PDR Yemen, where there has been rather widespread breeding. Breeding may continue in coastal and some interior areas of PDR Yemen and is likely to spread to the Tihama of Yemen AR and the southern Tihama of Saudi Arabia. The latter area may also be invaded by adults from across the Red Sea but these are unlikely to include swarms. Scattered adults and possibly some groups may reach Oman and the

United Arab Emirates from the east.

In South-West Asia congregans breeding has occurred in Rajasthan close to the Pakistan border and near Bikaner. Unless adequately controlled groups of adults and even small swarms could be produced. If there is a second generation of breeding hopper bands are likely to form and further swarms are likely to be produced towards the end of the forecasting period.

Rome

29 September 1986



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