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Locusts, other migratory pests and emergency operations group

DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 61 SEPTEMBER - EARLY OCTOBER 1983

SUMMARY

There has been an important local upsurge in the summer breeding area of India and Pakistan, and numerous swarms have been produced despite intensive aerial and ground control measures. Further breeding is in progress and further swarms may be produced. Elsewhere summer rainfall has generally been below average and only small numbers of adults have been reported in the United Arab Emirates, People's Democratic Republic of Yemen, Saudi Arabia and Sudan.

DESERT LOCUST SITUATION, SEPTEMBER - EARLY OCTOBER

WEST AFRICA

Meteorology

The ITCZ moved southwards irregularly and displayed waves of very variable amplitude. Its mean position was about 15°N at the beginning of October. Infra-red and visible Meteosat imagery of cloud masses showed the position of the irregularities in the ITCZ and local developments, in particular thunderstorms discontinuously distributed over coastal areas (of Senegal and Gambia) and over the Sahel with several typical examples in the triangle Agades - Zinder - N'Guigmi, particularly on 6-7 September, which gave rise to falls of rain of the order of 20 mm in 24 hours. N'Djamena recorded 29 mm on 7 September. Several sandstorms occurred in Mali at the end of September. During the same period there were thunderstorms in Mauritania at Atar, Tidjikja and Kiffa, the GTS recording falls between 3 and 8 mm. During the first decade of September Zinder recorded 44 mm against the long term average of 37 mm. During the second decade Aïoun el Atrouss recorded 47 mm against the long term average of 17 mm. During the third decade the largest rainfall total in Mauritania was recorded at Kaedi, which received 46 mm, compared with a mean of 19 mm; in Mali, Bougouni recorded 107 mm which is 42 mm more than normal.

Maximum temperatures were 25°-32°C in coastal areas and 33°-40°C in the Sahel.

Breeding conditions

NOAA/AVHRR vegetation index imagery of early September 1983 confirmed that breeding conditions were favourable in localized areas in the region. Post rainfall low density vegetation cover was observed in several wadis in the Adrar des Iforas in Mali between 1845-2020N/0030-0150E, the Air massif in Niger between 1700-1750N/0720-0835E and isolated wadis in Mauritania between 1640-1720N/1200-1330W. Later during September vegetation biomass activity in these areas was seen to be declining. Therefore, overall potential for locust breeding in the region during the 1983 summer season is estimated to have been at a fairly low level.

Locusts

No locust reports have been received.

NORTH-WEST AFRICA

Meteorology

During the first decade of September there was significant rainfall in Morocco, on the plateau around Beni-Mellal with values of the order of 4 mm for each shower.

During the two following decades some disturbances weakened by anti-cyclonic ridges influenced the eastern Maghreb; for example Benina received no more than 1 mm during showers (22 September).

From 26 September an important low pressure area (cyclogenesis) over the western Mediterranean sea resulted in 6 hourly rainfall totals of 14 mm at Tripoli and 22 mm at Tunis. Algeria was also affected, but to a lesser extent. According to the GTS Tamanrasset received 3 mm of rain during the passage of a cold front associated with the low pressure area mentioned above. Midday temperatures were in the range of 20°-30°C in coastal areas but frequently exceeded 40°C in the Sahara.

Breeding conditions

The available satellite data coverage for the summer breeding areas of southern Algeria indicated that conditions for breeding were unfavourable during this period.

Locusts

No locusts were reported.

EASTERN AFRICA

Meteorology

The progressive southward shift of the ITCZ was accompanied by numerous storms. Moderate rains were reported from eastern Ethiopia and around Hargeisa. According to GTZ data Asmara received 36 mm on 11 September. Frequent dust storms were recorded throughout September at Belet Uen.

Daily maximum temperatures were very variable due to local conditions; ranging from 20°C in highland areas to over 30°C in low-lying areas, while in Djibouti the daily maximum was frequently around 40°C.

Breeding conditions

NOAA/AVHRR vegetation index imagery acquired over the region on 14 September 1983 indicated that the potential for locust breeding was at a very low level. The coastal areas of Eritrea, Ethiopia, Djibouti and northern Somalia were observed to be extremely dry during this period. Also, the interior areas of Somalia and the Ogaden were extremely dry during this period.

Locusts

SUDAN

Scattered groups of adults were reported in the Kassala and Sinkat areas in late August early September.

There were no other reports from the Region.

NEAR EAST

Meteorology

Several sandstorms were reported at the beginning of September from Yemen Arab Republic and southwestern Saudi Arabia, while at the end of the first decade there were thunderstorms along the Tihama of the Yemen Arab Republic. During the second decade there were sandstorms over northern Arabia while the stormy tendency continued along the Tihama until 21 September. According to fragmentary rainfall data supplied by the GTS there was 29 mm of rain at Mukalla on 2 mm of rain at Salalah on 3 September, while after that date there was little rain.

The thunderstorms of 21 September were accompanied by rain, which reached 17 mm on 24 hours at Taiz according to the GTS.

Midday temperatures ranged from 43°C in dry interior areas to 27°C during thunderstorms.

Breeding conditions

The NOAA/AVHRR vegetation index imagery coverage for south-western Arabia of 14 September showed that apparently the rains reported during the last decade of August and early September had generally been widespread. When compared to the imagery of 20 August and 5 September, significant vegetation development could be observed over very large areas in the interior of south-western Saudi Arabia, and the interior of Yemen Arab Republic and People's Democratic Republic of Yemen, generally between 135QN-163QN and 445OE-4625E. The southern Tihama in Yemen Arab Republic was observed to have vegetation development in localized areas whereas the Tihama of Saudi Arabia and the coastal plains of Yemen PDR were observed to be dry. In eastern Arabia breeding conditions were generally unfavourable during this period. On the satellite imagery of 18 September, two small green areas were observed in Oman at 210QN/582OE and 202QN/5755E.

Locusts

SAUDI ARABIA

Small numbers of solitarious adults were found in the Jizan area and in wadi Dawasir, where hoppers were also found.

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

Small numbers of solitarious adults were found in Wadi Harim (1454N/4555E) on 22 August and at El-Khadah (1421N/4629E) on 23 August. No locusts were reported during September.

UNITED ARAB EMIRATES

A single adult was found near Sharjah airport during August.

EGYPT was clear in September.

There were no other reports from the Region.

SOUTH-WEST ASIA

Meteorology

The low pressure area which characterises the monsoon filled in slowly but instability persisted and numerous violent thunderstorms were recorded. During the first decade of September the GTS signalled rain in Indo-Pakistan border areas between Karachi and Lahore. The Pakistan Plant Protection Department reported moderate to heavy rain in parts of Tharparkar, Rahim Yar Khan, Sukkur, Dera Murad Jamali, Uthal and Bahawalpur districts during the first fortnight of September, while in the spring breeding area Panjgur, Khuzdar and Pasni received moderate rain during the first week of September. During the first decade of September winds were light and variable. During the second and third decades they became moderate south-westerly resulting from the joint effect of a small quasi-permanent depression (1000 mb) over Pakistan and a weak stationary ridge (1010 mb) over the Indian Ocean. The flow of humid air was accompanied by high temperatures which ranged from 30°C in Karachi to 40°C in Bahawalpur.

In India there were moderate widespread above average rains during the first fortnight of September, Barmer recording 26.1 mm, Jodhpur 48.0 mm, Jaisalmer 12.7 mm, Ganganagar 30.0 mm, Sikar 53.3 mm and Bikaner 36.9 mm. There was little rain in Rajasthan during the second half of the month. Midday temperatures were constantly in the range 33-38°C.

Breeding conditions

The significant breeding potential in the Indo-Pakistan summer breeding areas, reported in August, continued to expand during the first half of September 1983, notably in western Rajasthan in India. NOAA/AVHRR vegetation index imagery coverage for the region acquired on 16 September showed that the area bordered by 6930-7200E and 2430-2800N had significant vegetation development reflecting optimal ecological conditions over a vast area. In the Las Bela region of Pakistan the vegetation continued to be very green between 2455-2600N and 6645-6720E. Towards the end of September vegetation biomass activity was generally seen to be declining in all areas. By mid-October the vegetation was drying out rapidly.

Locusts

PAKISTAN

Between 6 and 26 September there were 27 reports of mature, copulating swarms from the Tharparkar desert and 11 from the Nara desert, the maximum size being 10 square kilometres. All were treated by exhaust nozzle sprayers and/or aircraft but further laying occurred and renewed hatching started on 21 September. There were also considerable numbers of solitary adults. Control operations continued against hopper bands, groups of late instar hoppers and young adults. The Las Bela district was cleared during the first half of September and Cholistan during the second half of September but at the end of the month control operations were still in progress in the Khenjo sector of the Nara desert and in the Khipro and Chachro sectors of the Tharparkar desert. In all operations, over 3 700 hopper bands were sprayed and 870 square kilometres strip sprayed as preventive measures, using 47 239 litres of dieldrin, 5 717 litres of fenitrothion and 9 654 kg of BHC dust.

During the first fortnight of October 10 immature swarms and advanced stage hopper bands infiltrated from across the eastern border into Tharparkar, Nara and Cholistan deserts. All swarms and 9 017 hopper bands were controlled by aerial and ground teams.

INDIA

During September there were 48 reports of mature swarms from Barmer and Jaisalmer districts of Rajasthan and Kutch district of Gujarat. All swarms were controlled by aerial and ground units using 10 285 litres of liquid insecticide and 13 750 kg of BHC dust.

Control operations against second generation hoppers were concluded in Jodhpur district on 31 August, in Barmer district on 1 September and in Jaisalmer district on 19 September, but further hatching occurred in September and further control operations by aerial and ground units recommenced. Egg-fields in 6 localities of Jaisalmer were sprayed with 800 litres of dieldrin. There were also considerable numbers of solitarious adults during September, the maximum densities being "countless" in six localities of Jaisalmer, Bikaner and Kutch districts.

AFGHANISTAN was reported clear in August.

There were no reports from IRAN.

FORECAST FOR NOVEMBER - DECEMBER 1983

There has been an important seasonal upsurge in the summer breeding areas of India and Pakistan and numerous swarms have been produced despite intensive aerial and ground control measures. Control operations will continue until the end of October but even then a number of small swarms may escape destruction and move westwards into winter breeding areas in Baluchistan, southern Iran or eastern Arabia.

In South-West Asia, further intensive aerial and ground control operations will be necessary to effect complete control of swarms and hopper bands in the summer breeding areas of India and Pakistan. Further fledging is likely from the end of October and most escapes are likely to move westwards to Baluchistan and south-eastern Iran and these may include some small swarms. As temperatures decline, however, an increasing proportion of individuals are likely to remain in the summer breeding area.

In the Near East considerable numbers of adults, possibly including some small swarms may reach United Arab Emirates and Oman from the east and some adults may reach the People's Democratic Republic of Yemen. If eastern Arabia is affected by a cyclone in late October or November wide-spread breeding may occur. Breeding on a considerable scale could occur in Yemen PDR if immigration is on a large scale. If not, there will be small scale breeding in Gulf of Aden coastal areas and along the Tihamas of Yemen AR and Saudi Arabia.

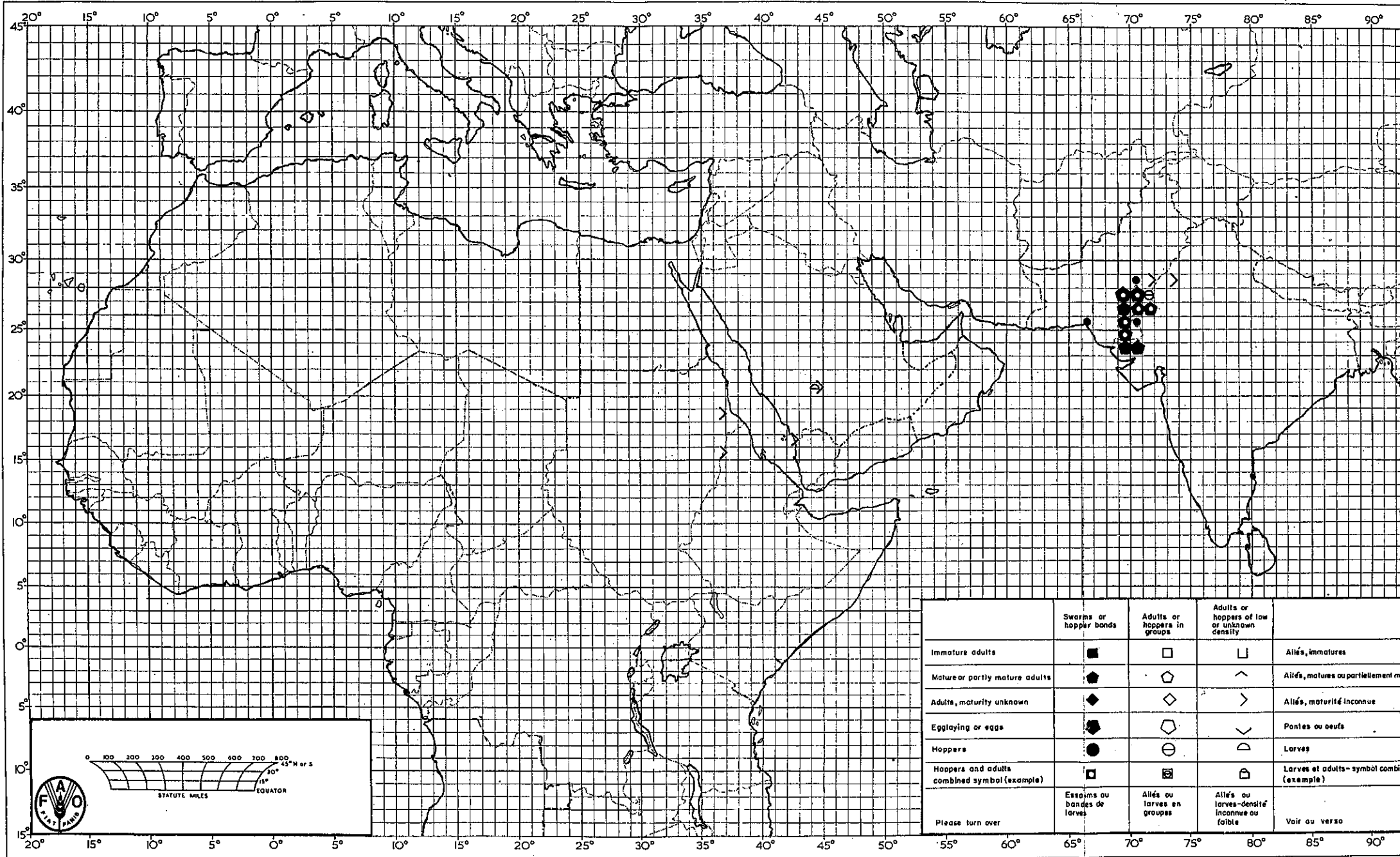
In Eastern Africa considerable numbers of adults are likely to concentrate in the Tokar delta and other coastal areas of Sudan and northern Ethiopia which have received summer floods and breeding will commence in the forecast period. Adults, perhaps in considerable numbers, may reach Djibouti, north-west Somalia and eastern Ethiopia from Arabia and breeding could commence in the first two areas.

In West Africa only small numbers of adults are likely to have been produced on summer rains. Small numbers may persist in the Adrar des Iforas, Tamesna and Air.

In North-West Africa small numbers of adults are likely to have reached southern, central, eastern and western Algeria, south-east Morocco and perhaps western Libya. Small numbers of adults may persist in cultivated oases in Libya.

Rome
19 October 1983

Desert Locust Situation Summary No. 61 SEPTEMBER- EARLY OCTOBER/SEPTEMBRE-DEBUT OCTOBRI



	Swarms or hopper bands	Adults or hoppers in groups	Adults or hoppers of low or unknown density	
Immature adults	■	□	▭	Alliés, immatures
Mature or partly mature adults	◆	◇	∧	Alliés, matures ou partiellement m
Adults, maturity unknown	◆	◇	>	Alliés, maturité inconnue
Egg laying or eggs	●	⊙	∨	Ponies ou oeufs
Hoppers	●	⊙	∩	Larves
Hoppers and adults combined symbol (example)	◻	⊠	◻	Larves et adultes - symbol combi (exemple)
Please turn over	Essaims ou bandes de larves	Alliés ou larves en groupes	Alliés ou larves - densité inconnue ou faible	Voir au verso