



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

Via delle Terme di Caracalla, 00100 Rome, Italy

Cables: FOODAGRI ROME

Telex: 610181 FAO I

Telephone: 57971

AGP Division

Locusts, other migratory pests and emergency operations group

DESERT LOCUST SITUATION SUMMARY AND FORECAST

NO. 118 JUNE-EARLY JULY 1988

SUMMARY

In North-West Africa control measures against swarms and hopper bands declined progressively throughout June and early July. By mid-July small to moderate scale control of hopper bands and immature swarms was continuing in northern Algeria but was largely complete in Morocco and Tunisia. Reports from central Algeria indicated that some southerly movement of immature swarms occurred in late June and early July but the scale of movement is difficult to assess.

In West Africa numerous swarms were reported from Mauritania from mid-June onwards with movement in a predominantly southerly direction. Elsewhere in the region, generally small swarms at varying stages of maturity were seen in Senegal, Mali and Niger and low density adults were reported to be widespread. However, only a few confirmed reports of hoppers from Mali and Niger have been received and although it is likely that additional hatchings have occurred the lack of rain in the northern Sahelian zone may have had an adverse effect on breeding. Several swarms flew eastwards across Niger in late June eventually reaching the Kanem region of western Chad in late June-early July. These swarms were reported to be maturing in late June and are likely to breed successfully in Chad.

In Eastern Africa several mature swarms were seen in the Northern Darfur region of Sudan in mid-June and subsequently reports were received of one mature swarm on the Darfur-Kordofan border and of two small mature swarms at Shendi in central Sudan in early July. Subsequently reports were received on 20 July of large swarms in the Darfur, Kordofan, Khartoum and Kassala areas. It must be assumed that successful breeding is in progress in all these areas and that moderate to large scale control will be required in Sudan and adjacent border areas of eastern Chad.

In the Near East control operations in the northern desert of Saudi Arabia are complete and no swarm formation has been observed. Ground surveys in the Tihama area have reported the area clear of locusts and conditions are unsuitable for breeding apart from some areas of the southern Tihama of Yemen.

In South West Asia the situation remains calm with only isolated low density adults reported. However, the potential for successful breeding has increased following rain in the first half of June.

WESTERN AFRICA

Meteorology

The Intertropical Convergence Zone remained in a predominantly southerly position between 13°N and 16°N during June and early July. This southerly position has resulted in a general lack of rainfall in the north of approximately 15°N , but rain fell on several days in Air, Tamesna and north-eastern Mali during June. By mid-July the ITCZ was located at about 18°N .

Breeding Conditions

Analysis of NOAA/AVHRR imagery for June indicated that conditions are generally favourable for breeding south of approximately 15°N . North of the 15th parallel conditions were generally unsuitable although areas of green vegetation were present in Air. Meteosat imagery indicates that heavy rain fell in the Bamako-Segou-Mopti area of central Mali in late June and reports were also received of significant rain in Chad in the same period.

Locusts

MAURITANIA

Hodh el Gharbi

Swarms were reported at Aioun ($1640\text{N}/0937$) on 16 June and at Kobeni ($1750\text{N}/1130\text{W}$) on 21 June. Two additional swarms were reported in the region on 17 and 20 June but no locations were specified.

Assaba

Several swarms were reported in the region in mid-June.

Tagant

Swarms were reported from Kegsem on 13 June, El Ghedia on 14 June and Tamourt Naaj on 20 June.

Adrar

Swarms were reported at Tawaz Aiouhaya and Jella during June.

Nouakchott

Several swarms were reported in the vicinity of Nouakchott between 16 and 21 June.

Rainfall during June was mainly confined to the southern border areas. Control operations were in progress.

SENEGAL

Small swarms of varying maturity continued to persist along the Senegal river from Richard Toll ($1620\text{N}/1541\text{W}$) in the west to Ouro Segui ($1536\text{N}/1319\text{W}$) in the east during June. Localised movement across the Senegal-Mauritania border was reported as was a gradual dispersal and maturation of swarms during June. On 22 June a small (500 ha) medium density swarm of mixed maturity crossed the Senegal River at Matam ($1540\text{N}/1315\text{W}$) but was controlled. Another small swarm was seen at Ndioum

(1635N/1439W) on 23 June flying south. In the Central Region an immature swarm was seen at Barkedji (1517N/1453W) on 1 June and a second swarm at Tiel (1502N/1450W) on 12 June. A swarm was also observed in the southern region at Nganda (1350N/1525W) on 3 June. In the Tambacounda area a swarm was reported flying south on 8 June and scattered to locally concentrated adults were seen in the area on 14 June. By late June scattered low density adults were widespread throughout the Senegal River basin, the Central Region, the Louga Region and the Tambacounda area. However, a few small, generally mature, low density swarms were still present along the Senegal River in the last week of June and the first week of July at Bokhol (1631N/1524W), Fanaye (1633N/1514W), Ogo, Gababe and Mbilor (1631N/1535W) : most of these were controlled. Moderate to heavy rain fell in southern areas during June but the northern regions remained dry until moderate rain fell in late June. A estimated total of 15,000 ha had been treated by late June.

MALI

Ground surveys undertaken in the Central Delta and Lakes Region in late May-early June reported only low density adult populations at varying stages of maturity. The maximum density observed was 5000 adults per ha between Sarne and Payona in the Central Delta region. Similar populations were seen at Takadji, Korienze (1518/0348W), Lake Aougoundou (1542N/0318W) and Sao in the Lakes region. Conditions were described as varying from very dry to locally suitable for breeding and some females in the Lake Aougoundou area were developing eggs. In mid June it was estimated that low density adults infested 16,000 ha and 2500 ha in the Mopti and Segou areas respectively. On 23 June hoppers, density not reported, were seen at Lake Aougoundou and on 1 July hoppers of various stages at densities of 35 to 50 per sq. metre were observed at Kondji Bobo (1600N/0320W). Widespread hatching was reported in the Yelimane-Nioro area in mid-July and hatching was also seen in the Mopti and Niafunke areas at the same time. One swarm only was reported, from Mourdiah, in the first half of June.

In late June several small swarms, maturity unknown, were seen in the Kayes region near Kirane (1525N/1014W), at Djidian (1312N/0927W) on 26 June and at Nioro (1514N/0935W) on 29 June. A small (15 ha) swarm was also seen at Fallou (1436N/0756W) in the Koulikoro region on 29 June. A laying swarm was seen near Nampala on 6 July and a large swarm was reported at Menaka (1555N/0224E) flying east in the first half of July. To early July it was estimated that approximately 8000 ha had been treated.

NIGER

In the first decade of June low density adults, between 100-500 per ha, were seen by survey teams in the Air Mountains, Termit and Tamesna areas. Between 17 and 20 June several immature swarms were reported in the Ayorou (1444N/0055E) and Tillaberry (1413N/0127E) areas flying east. From 20 June onwards immature swarms were seen daily flying east near Ouallam (1419N/0205E). In late June numerous localised low density adults were seen in the central and eastern Air region and on 29 June a small (250 ha) immature swarm was observed flying east at Wadi Zaililet, approximately 70 kilometres north-west of Timia. On 28 and 29 June several mature swarms were reported to have crossed into Chad after flying south-east across Niger from 20 June onwards. These swarms were reported near Maroua on 24 June, at Zinder (1415N/0119E) on 26 June and at Diffa (1319N/1237E) on 29 June before crossing into Chad. In mid-July 35 hectares of first to fourth instar hoppers were controlled at Affodey (1742N/0746E). It was estimated that approximately 20,000 ha had been treated up to 10 July.

BURKINA FASO

As reported in Summary No.117 a small swarm (4 sq. kilometres) was seen at Koiobgou and low density adults at Lassa in the first decade of June. Since then the situation has remained calm with only low density adult locusts reported from numerous localities in northern areas in late June.

CHAD

As reported in Summary No.117 adult locusts were seen in central Chad at Faya Largeau (1807N/1809E), Kirdina, Kalait and 135 kilometres north of Fada (1712N/2135E) in the first decade of June. The swarms reported at Guereda on 11 June continued moving in a south-east direction and one swarm was reported to have crossed into Sudan at Koulbous (1422N/2227E) on 14 June. Swarms were also seen at Rig Rig (1415N/1410W) in western Chad and at Wadi Wasse 38 kilometres north of Kalait (1545N/2008E) on 13 June. Between 2 and 23 June a mature medium density swarm measuring approximately 12 sq. kilometres was present at Faya (1743N/1904E). In late June-early July the Kanem region of western Chad was again invaded by swarms from Niger. Medium density swarms were seen at Nokou (1435N/1447E) on 28 June, Ngouri (1338N/1522E) on 30 June and at Bol (1330N/1441E) on 1 July : severe localised crop damage was reported. In mid-July several flying swarms were reported from eastern Chad at Abeche (1349N/2049E), Biltine (1432N/2055E), 70 kilometres south-east of Ati (1330N/1820E) and several other locations. There was also an unconfirmed report of hoppers from the Ouaddai district in mid July. In addition there were also further reports of swarms from western Chad at Antiona, Tchalla, Bagasoula and Liwa in mid July. Up to 14 July 3215 ha had been treated. Significant rain was reported to have fallen in most areas of locust activity in late June.

NORTH-WEST AFRICA

Meteorology

The Saharan heat low had become established by early July.

Breeding Conditions

Analysis of NOAA/VHRR imagery indicates that areas suitable for breeding are present in northern Tunisia and the northern littoral and Atlas foothills of Algeria.

Locusts

MOROCCO

Control measures in the Guelmim, Zagora, Tata, Errachidia and Bouarfa regions and adjacent border areas continued throughout June and early July but on a decreasing scale. Small scale hopper band control was also undertaken in the Oudja region in early June. Both late instar hopper bands and new generation swarms were controlled in the first half of June but the proportion of swarms increased gradually and from 21 June onwards fledging and formation of swarms appeared complete and control was concentrated on the new generation swarms. By early July control operations were almost complete. From 1 January to 12 July 2,603,074 ha had been treated.

ALGERIA

North of the Atlas hatching continued throughout June on a diminishing scale. Hopper bands of various instars were present throughout the coastal littoral and adjacent foothills during June from Boumerdes in the west to Tebessa (3524N/0807E) in the east. Moderate scale control of these hopper bands continued throughout June and early July with intensive control in the Setif-Djelfa-Khenchela-M'Sila-Tiaret area. Isolated hatchings were still being reported in this area in early July. By late June fledging of the later instar bands was in progress and several immature swarms and high density adult groups were seen in the above areas although late instar hopper bands were still present in the Khenchela (3526N/0708E) and adjacent areas in mid July. Immature swarms and high density adult groups were seen at Djelfa on 9 July, Ain Oussera on 8 July, Tiaret (3522N/0119E) on 10 July and El Bayadh (3341N/0101E) and Ain Skhouna (3430N/0051E) on 12 July.

South of the Atlas small scale localised control of immature swarms and high density adult groups continued in the Bechar, Timimoum, Adrar, Tamanrasset, Illizi and Djanet areas during June. On 30 June approximately 16,000 ha in the Adrar region was infested by immature adults from the north. Immature adults were also seen at In Salah (2713N/0228E), Aoulef (2658N/0105E) and Reggane (2642N/0010E) at the same time. An immature swarm was seen in the Illizi area on 24 June flying from east to west. High density adults were also reported at Silet and Tamanrasset (2247N/0531E) from mid-June to early July. In the western border area a swarm was reported from the Tindouf area on 18 June but no subsequent reports of activity have been received from this area. From 27 February to 17 July 2,010,136 ha had been treated by ground and air.

TUNISIA

Control of mature swarms continued throughout June in the El Kef, Siliana, Kasserine, Zaghuan and Kairoune areas. By the end of June swarm control had largely finished and small scale control of hoppers had started in most of the above areas. From 8 March to 15 July 348,501 ha had been treated of which 13,851 ha comprised hoppers.

LIBYA

A few low density immature swarms were reported in the Ghat (2500N/1017E) area in the vicinity of the Algerian border in the second half of June. One small low density immature swarm was seen in the area in mid July and small scale control operations were still in progress.

EASTERN AFRICA

Meteorology

In late June the Intertropical Convergence Zone was located between approximately 11°N and 13°N over Sudan and Ethiopia. By mid July the zone had moved northwards and lay between 17°N and 20°N. Meteosat imagery indicated that light rain fell in central Sudan and in the Kassala area of eastern Sudan and adjacent areas of north-western Ethiopia in the last decade of June.

Breeding Conditions

In general breeding conditions were assessed as unsuitable from analysis of NOAA/VHRR imagery for June throughout most of the region.

However, in the Nyala-Jebel Mara area of western Sudan and the Kassala area of eastern Sudan and adjacent areas of Ethiopia localised areas assessed as suitable for breeding were identified. In early July scattered rain was reported in areas of northern Darfur, northern Kordofan and Kassala.

Locusts

SUDAN

In the first half of June several mature swarms were reported from northern Darfur as detailed in Summary No. 117 and there was an unconfirmed report of a mature swarm at El Geneina. On 17 June a mature swarm was seen near Kebkabiya (1330N/2410E): mating by scattered adults was also seen near El Geneina on 19 June. On 14 June a swarm was reported at Koulbous on the Chad border flying east into Sudan. Ground surveys in northern Darfur in late June-early July observed small areas (20 to 100 ha) of mature adult groups at densities of 600 to 800 adults per hectare in several localities notably Gafafa (1336N/2229E), Jebel Lend (1338N/2229E), Karnoi (1506N/2314E) and Umm Baru (1502N/2343E). One dense mature swarm estimated at 8 sq. kilometres was also seen at Bir Daqiq (1342/2228E). On 9 July another mature swarm of similar size was observed at Umm Hueiliga (1519N/2704E) near the Darfur-Kordofan border flying east. A mature swarm, estimated size 8 sq. kilometres, was also seen at Saniya Karau (1309N/2556E) on 13 July. This swarm subsequently flew off to the north-east. Further east in central Sudan two small (2 to 3 ha) low density mature swarms were seen at Wadi El Denn (1701N/3345E) and Umm Ali (1704N/3343E) near Shendi on 9 and 10 July. Between 15 and 18 July several large, from 30 to 150 sq. kilometres, mature swarms were reported from the Khartoum-Omdurman (1535N/3232E) area, Wadi Hamra (1635N/3115E) and also from the Kassala area at Aberyah (1550N/3655E) and Sawa (1551N/3657E). Scattered light to moderate rain was reported in Darfur, Kordofan and Nile provinces in the first half of July with Khartoum recording in excess of 25 millimetres.

ETHIOPIA

Isolated mature adults were reported at Asmara in the second week of July.

DJIBOUTI AND SOMALIA were reported free of locusts during June.

NEAR EAST

Meteorology

No significant rainfall was reported over most of the region during June but there were numerous rainy days in south-west Arabia.

Breeding Conditions

Analysis of NOAA/AVHRR imagery for June indicates that conditions are generally dry and unsuitable for breeding. However, localised areas of green vegetation were identified along the southern Tihama of Yemen between Sana'a and Taizz in late June.

Locusts

KINGDOM OF SAUDI ARABIA

Moderate scale control of small (approximately 2 to 5 ha) hopper bands continued in the Northern Desert region of Saudi Arabia during June. Control operations were carried out in the Tebouk (2823N/3635E), Hail (2733N/4142E), Al Ula (2638N/3755E), Taima and El Jawf areas. By late June control operations had ceased except at Taima where small scale control was continuing. Ground surveys undertaken in the Qunfidah, Jizzan and northern Tihama areas during June found no significant locusts. Approximately 7300 ha had been treated by ground and air to mid-June. Conditions were reported as dry and unsuitable for breeding.

YEMEN

Low density adults were reported in the Harib area during June.

SOUTH-WEST ASIA

Meteorology

Light to moderate rain fell in the Cholistan and Mirpur Mathelo areas of Pakistan and also in parts of the scheduled Desert Locust areas of India during June. There were unconfirmed reports of heavy drought breaking rains in Rajasthan in mid July.

Breeding Conditions

Breeding conditions were reported to have improved slightly in India and Pakistan.

Locusts

PAKISTAN

Scattered low density adults, maximum density 150 adults per sq. kilometre were observed at Kandera (2801N/7015E) and Gunian Wala (2745N/7058E) during June.

INDIA

No locust activity was reported during the summary period.

FORECAST FOR AUGUST-SEPTEMBER 1988

In North-West Africa the scale of control operations will continue to decline and should terminate by late July-early August. Further small scale fledging of hopper bands and the formation of small immature swarms and adult groups will also continue until late July in northern Algeria. However, significant new breeding is now unlikely in North-West Africa and adult numbers will decline progressively during August and early September. In southern Algeria further movement of immature swarms and adult groups towards the Sahel is likely to continue on a reduced scale during July. Breeding may start in southern Algeria if the area receives summer rains and could be on a large enough scale to produce hopper bands.

In West Africa breeding is likely to become widespread in August and September and despite the large scale control operations being planned it is probable that considerable numbers of swarms will be produced towards the end of the forecast period. Limited breeding has already started limited swarm formation is possible from early August. There is still a high risk of further swarm invasion from the north in early August.

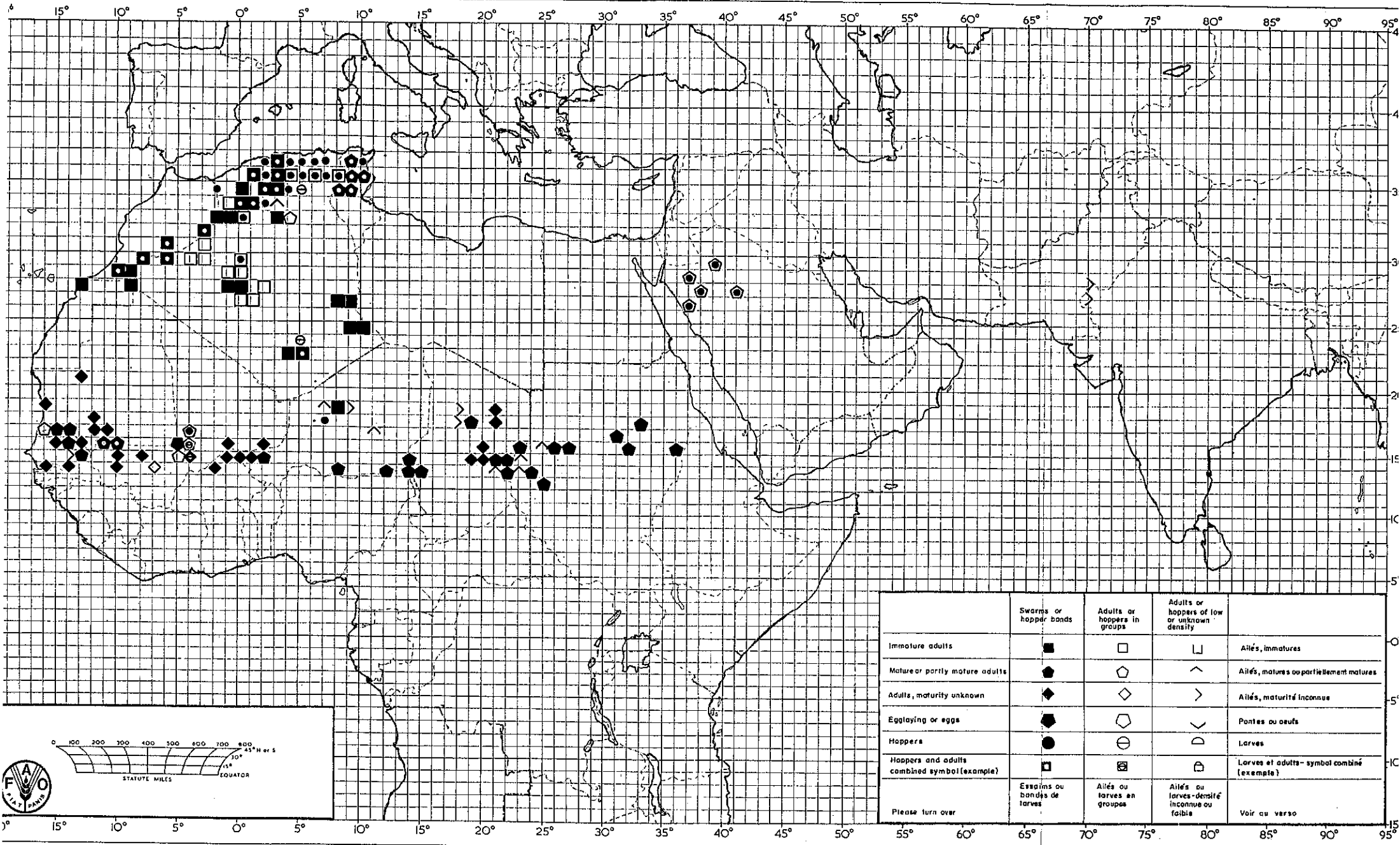
In Eastern Africa widespread gregarious breeding is likely to occur in northern Darfur eastwards to the western lowlands of northern Ethiopia. Large scale control measures will be required in these areas and adjacent areas of Chad to prevent the formation of new generation swarms from early September. Swarms which do form may remain within the summer breeding area and breed again if conditions are suitable. Alternatively they may migrate westwards into Chad, south-east and south across eastern Ethiopia or north-east towards the Red Sea basin.

In the Near East scattered low density immature adults surviving the recent control campaign will gradually decline in number.

In South-West Asia small scale breeding will occur in the summer breeding areas.

Rome, 20 July 1988

Desert Locust Situation Summary No. 118 JUNE-EARLY JULY / JUIN DEBUT JUILLET 1988



	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

