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Locusts, other migratory pests and emergency operations group

DESERT LOCUST SITUATION SUMMARY AND FORECAST

NO. 119 JULY-EARLY AUGUST 1988

SUMMARY

An extremely dangerous situation developed in Chad and Sudan and northern Ethiopia in July and early August following further major large scale swarm invasion and widespread breeding by the immigrant population on very favourable rainfall. The continued large scale easterly movement of swarms across the Sahel eventually led to the invasion of eastern Sudan and Ethiopia and by 20 July a few swarms had crossed the Red Sea into the Yemen Arab Republic.

In West Africa further mature swarms invaded south-east Mauritania from mid July to early August and bred successfully. Hatching occurred in several areas of Mauritania, Mali and Niger in the first half of July following laying in June with small to moderate scale band formation occurring by late July.

In the Near East a few mature swarms invaded the Yemen Arab Republic in late July and small to moderate scale breeding is probably in progress. Scattered mature adults were also seen on the western coast of Yemen PDR and southern Tihama of Saudi Arabia in late July.

In North-West Africa control operations ended in late July.

South West Asia remained calm. Heavy rain fell in the summer breeding areas of India and Pakistan during July and small scale breeding is probably in progress.

WESTERN AFRICA

Meteorology

The Inter-Tropical Convergence Zone gradually moved north during the summary period from between 15 and 17 degrees in early July to between 18 and 21 degrees by late July. In early August it moved as far north as 25 degrees.

Moderate to heavy rain fell throughout the region during July and early August with the exception of northern Senegal where conditions remained dry. In general rainfall in the region during July and early August has been well above the long term average.

Breeding Conditions

Breeding conditions are generally favourable to very favourable throughout the region.

Locusts

MAURITANIA

Trarza

A swarm was reported at Gani on 16 July.

Hodh El Gharbi/Hodh El Charghi

Several mature swarms, one reported to be approximately 60 sq. kilometres in size, were reported at Kobeni, Aioun El Atrouss (1640N/0937W), Tintane (1623N/1011W), Timbedra (1615N/0810W) and Nema (1637N/0715W) south to the Mali border from 11 July until early August. Laying was general by late July. On 25 July hatchings were reported from the southern Mali border area in the Daikoura, Jelmoya Blegdour and Sornalie areas. In late July mainly third instar hopper bands were seen at Foynya and Trahilet Lehmar near Djigueni (1544N/0840W) and an extensive area of approximately 60,000 ha of early instar bands was reported in the Nema area in early August. Additional mature and laying swarms were reported south-east of Aioun El Atrouss at Khalia, Erch, Sawana and Mousfeya in early August and hatching was still in progress.

Assaba Region

Scattered adults were seen between Kiffa (1637N/1124W) and Tintane in late July. One swarm was seen near Kankossa flying south towards Mali in late July.

Guidimaka Region

Several swarms, flying south, were reported from Lehrach, Ould Ygenge, Tektake and Baye F'Karine in late July.

Tagant Region

A low density laying swarm was reported in the vicinity of Letfotar (1745N/1230W) in late July.

Brakna and Gorgol Regions

There were unconfirmed reports of swarms at Dolol in early August. Mature swarms, some reported to be laying, were seen at Achorgitt, 25 kilometres north of Aleg (1703N/1355W), in early August.

Ground control operations were in progress but no details were available.

SENEGAL

One small low density swarm was seen near Dagana on 1 July. In early July small low density mature adult groups were seen in the Matam area at Gababe (1607N/1533W) and Sedo-Sebe. From early July the situation was calm and there were no reports of locust activity.

MALI

In the Kayes region of western Mali several thousand hectares were infested by early instar hopper bands in the Yelimane (1508N/1034W), Nioro (1514N/0935W), and Balle (1520N/0835W) areas in mid-July. Hatchings were also reported south-east of Kayes, in the Mopti region at Douentza (1500N/0257W) and Senomango and in the Tombouctou region at Niafunke in mid-July. Hopper bands were also seen near Kossoumale, Kirane and at Soumpi (1551N/0420W) in early August. On 6 July a laying swarm was seen 20 kilometres south of Nampala (1507N/0535W) in the Segou region with subsequent hatching in late July and a large swarm was also seen near Menaka flying east. Several swarms of mixed maturity were were reported from Gao (1606N/0002E) and Ouatacounda (1510N/0043E) in early and late July. In late July and early August mature swarms were seen at Lere and Niafunke in the Tombouctou region and between Haribongo (1610N/0235W) and Dakakoro (1500N/0255W). Approximately 16740 hectares had been treated up to 6 August.

Significant rain fell during the second week of July with Gao recording 38mm and Ansongo 42mm. Further rain fell during the remainder of July and early August and conditions were reported as very favourable for breeding.

BURKINA FASO

A small area (75 ha) of low density adult groups was controlled at Gotougou in July.

NIGER

The swarms which were reported flying across southern Niger in Summary No. 118 in late June also bred successfully in some areas. In the first three weeks of July dense early instar hopper bands formed over approximately 30000 hectares in western Air near Afodey (1742N/0746E) and aerial control was undertaken. By early August numerous scattered bands were still present. Small scale breeding was reported at Diffa (1345N/1221E), Maradi (1329N/0706E) and the North Tahoua-Ouallam area between 10 and 20 July. In the third decade of July control of late instar hopper bands had been undertaken in the Diffa area over 7000 hectares, at Damagaram (1410N/0928E) and the North Tahoua-Tilenses (1535N/0445E) area and a number of early instar hopper bands were reported from Kabelaoua (1350N/1255E). By the end of the first decade of August the following areas of hopper bands were reported :

Talak area (1830N/0713E) - numerous dispersed bands

North Tahoua - Abalak (1515N/0610E) - 10000 ha

Gadabeji area (1505N/0710E) - 10000 ha

Takoukou area (1510N/0830E) - 15000 ha

Goure area (1400N/1010E) - 5000 ha

Diffa-Nguigmi (1414N/1305E) - first to third instar hopper bands stages over 20-30,000 ha.

Both mature and immature adults at low densities were also seen in central and northern Air and also in the Diffa area during the first half of July. By early August few adults were remained in the Air or Tamesna but mature adults persisted in the Diffa area. On 22 July a mature swarm, estimated size 30 sq. kilometres was seen at Sabon Kafi (1400N/0837E) and on 6 August a low density mature swarm was seen flying to the north-west at Guigbi (1730N/0748E) To 10 August an estimated 50,000 ha had been treated and ground and aerial operations were continuing.

CHAD

The western region of Kanem was reinvaded by medium density swarms of mixed maturity from the west in early July. Swarms were reported from the Nokou (1435N/1447E), Ngouri (1338N/1522E) and Bol (1330N/1441E) and heavy localised damage to crops was reported. Hatching commenced in the Mao area in late July and by 8 August early instar hopper bands were reported at Ira, Lalala and Kebix Abourat in the Mao area and ground control was in progress In eastern Chad numerous dense swarms were reported to have invaded the Ouaddai and Biltine districts from the west during July and substantial breeding occurred from early July onwards. By 25 July hatching was widespread in the Abeche-Biltine area and early instar bands up to 10 kilometres long were present and extensive dense egg fields were still hatching. The situation deteriorated further by early August when it was estimated that up to 2 million hectares were infested by hopper bands of various stages in the Ouaddai district and 750,000 hectares in the Biltine district. Hatchings were also reported in the Djedaa area (1331N/1834E) on 15 August.

Elsewhere in Chad swarms were reported from the Faya region at Yen Galaka (1807N/1835E), from Ati(1313N/1820E), Liwa (1352N/1416E), and Massakory (1300N/1544E)) in the first half of July. Ground control continued throughout July and early August but were hindered by rainfall and difficulty of access after rain. To 15 August approximately 9000 ha had been treated by ground methods and aerial control operations commenced in mid-August.

NORTH-WEST AFRICA

Meteorology

Breeding Conditions

Analysis of NOAA/AVHRR imagery for mid and late July did not reveal any substantial areas of green vegetation in central Sahara or Algeria or southern Libya.

Locusts

MOROCCO

Small scale control of immature adults continued in the Zagora, Guelmim and Errachidia areas until 19 July. No further reports have since been received and it is assumed that control operations have terminated. From 1 January to 19 July 2,603,914 hectares were treated.

ALGERIA

In the first half of July extensive areas of predominantly late instar hopper bands were present in the Setif-M'sila-Khenchela-Djelfa area of northern Algeria and moderate scale control of this infestation continued until 20 July. Smaller populations of late instar hoppers and fledglings were also present in the Aflou (3407N/0206E), Mila (3627N/0616E), Batna (3534N/0611E) and Tebessa (3524N/0807E) areas. Isolated hatchings were reported on 4 July in the Khenchela area. By mid July fledging was widespread and numerous small areas of high density adults and a few immature swarms were controlled.

In southern Algeria immature adult groups and swarms were reported in the Tamanrasset, Adrar, Timimoun and Illizi areas in the first half of July.

From 27 February to 19 July 2,016,622 hectares had been treated.

TUNISIA

Small localised areas of hoppers were present in the Kairoune, Le Kef, Kasserine and Zaghouan areas of northern Tunisia in early July and small scale control was in progress. By mid July control operations had terminated. A total of 348,501 hectares was treated during the campaign of which 13,851 hectares comprised hopper bands.

LIBYA

One small low density immature swarm was seen at Ghat (2458N/1011E) in early July and small scale control operations were in progress.

EASTERN AFRICA

Meteorology

Widespread moderate to heavy rain fell in many areas of central Sudan from Darfur to Kassala and extending into northern Ethiopia in late July and early August causing extensive flooding particularly in the Khartoum area. The Inter-Tropical Convergence Zone reached 22 degrees north in Sudan in the first half of August.

Breeding Conditions

Conditions are generally very favourable for breeding.

Locusts

SUDAN

Northern Darfur

Mature swarms continued to invade Darfur from the west during July and substantial breeding was observed over a wide area. Between 1 and 31 July approximately 30 swarms totalling 1085 sq. km were reported. Potentially the breeding area extends from the Chad border east to El Fasher and in a north-south axis from Wadi Hawar to El Geneina. Several large laying swarms, total area estimated in excess of 1000 sq. km, were reported in the Halluf (1340N/2524E)-Seili (1349N/2526E) area on 2 August. In the first decade of August hatching was widespread and a large number of early instar hopper bands had formed in the general breeding area outlined above.

Northern Kordofan

A large, approximately 1120 sq. km, laying swarm was reported at Umm Sayala (1425N/3109E) on 28 July and a large ,525 sq. km, mature swarm from Mughnus (1410N/3057E) on 16 July. Additional small mature swarms were reported from Umm Ḥugeiliga (1519N/2704E) on 9 July and from Mughnus on 28 July. By 7 August hatching and early instar hopper band formation were in progress in the above areas and an estimated total of 400 sq. km of hopper bands were present.

Khartoum Province

Between 16 and 21 July several large mature swarms ranging in size from 30 to 135 sq. km, were seen in the region at Khartoum, Omdurman, Wadi El Humura (1635N/3115E), El Ruteibi (1545N/3202E) and Abu Tuleih (1607N/3148E). Laying was seen in several of these localities. Mature adult groups were also seen at Abrag (1532N/3305) and Owlwan (1525N/3313E) in the same period.

Kassala Province

Between 12 and 21 July a number of mature adult groups and several large, up to 154 sq. km, laying swarms were seen in the Kassala-Derudeb(1738N/3612E) area.

White Nile

A small mature adult group was seen at Abu Huara on 14 July. Two mature swarms, 0.5 and 20 sq. kilometres in size, were reported at Esh Shugeig (1428N/3154E) and Mugeirinat (1428N/3142E) on 1 and 4 August.

Aerial swarm control was carried out mainly in Darfur during July and is continuing. To 15 August 4100 ha had been treated and control was reported to be in progress in all affected areas.

ETHIOPIA

There were numerous reports of mixed maturity swarms from the Asmara, Ghindi (1526N/3907E), Himberti (1518N/3837E), Keren (1540N/3825E) and Decamere (1505N/3906E) areas from 21 July onwards. Most swarms varied between 1 and 10 sq. kilometres in area. By 8 August there were reports of widespread copulation and egg laying in the Asmara area. In the first week of August there were unconfirmed reports of swarms along the Red Sea coast in the Karora (1742N/3822E), Teklay (1736N/3835E), Abarara (1600N/3904E) and Shieb (1552N/3904E) areas. In addition there were unconfirmed reports of mature

swarms in the western lowlands of Eritrea near Keru (1533N/3712E) on 8 August. On 11 August hopper bands and swarms were seen in the Akkele Guzai (1450N/3930E) province of Eritrea. Aerial control was carried out in the Asmara area and is continuing but no details were available.

SOMALIA and DJIBOUTI were reported clear in July and early August.

KENYA, TANZANIA and UGANDA were clear up to 9 August.

NEAR EAST

Meteorology

Moderate to heavy rain fell in the far south of Saudi Arabia, Yemen Arab Republic and Yemen PDR in late July.

Breeding Conditions

Breeding conditions are very favourable in the south-west of the region.

Locusts

KINGDOM OF SAUDI ARABIA

Scattered adults, average density 400 per hectare, were seen over 6 sq. km near Abu Arish (1658N/4250E) on 5 August.

YEMEN ARAB REPUBLIC

Several small to medium size swarms of mixed maturity were also seen along the Tihama between 16 and 31 July. Scattered adults were reported to be widespread in the Sanaa area on 28 July. In the first week of August low density mature adults were reported in the eastern Marib region extending for 200 kilometres along Wadi Al Jawf. Ground control was reported to have been carried out but no details were available.

YEMEN PDR

Isolated adults were seen on survey at Uzafa (1239N/4400E) on 18 July. On 21 July one mature adult was seen in Almansoorah. In late July-early August low density mature adults were seen along the western coast in the Dar Mujahhar-Uzafa-Am Nabiyah-Bir Suqayyah area. Conditions were reported as suitable for breeding between Raydat Al Abd Al Wadud (1501N/5028E) and Sayhut (1511N/5115E) and in western coastal areas near Khoram-Umayrah (1239N/4408E) following rain in June and July.

RED SEA

Mature adults groups were reported by a ship in the Red Sea, position (1841N/4000E to 1639N/4104E), on 20 July. Wind was from the west north-west at 4-5 knots.

IRAQ and KUWAIT were reported clear in June.

SOUTH-WEST ASIA

Meteorology

Moderate to heavy rain fell throughout the summer locust breeding areas during July and early August.

Breeding Conditions

Breeding conditions are generally favourable.

Locusts

PAKISTAN

Scattered adults, maximum density 900 adults per sq. kilometre were seen at Goth Chapar (2519N/7023E) on 10 July and at Tinkanda (2533N/6630E) on 29 July.

INDIA

India was reported free of locust activity up to 15 July. Medium to heavy rain fell in the scheduled Desert Locust area during July.

AFGHANISTAN and IRAN were reported clear in June.

FORECAST FOR SEPTEMBER-OCTOBER 1988

The forecast period is traditionally one of long distance migration of swarms into the winter breeding areas and due to the large populations present in Chad and Sudan this movement will be on a very large scale.

In West Africa new generation adults will start to appear in Mali, Mauritania, Niger and Chad by the end of August. In eastern Chad swarm formation on a large scale is forecast by early-mid September.If rain falls in September in these areas there is a high probability that further breeding will occur in situ and new generation swarms could occur by late October with subsequent late migration. However, it is likely that some migration of swarms in a westerly to north-westerly direction will commence by mid September with northerly movement of swarms through Mauritania and southern Algeria.

In North-West Africa there is a high risk of large scale invasion by swarms from the south and south-east from late September onwards during periods of southerly and south-easterly winds. It is difficult to predict the precise timing and track of swarm migration but Algeria, Morocco, southern Tunisia, Libya and Mauritania will be at risk during the forecast period.

In Eastern Africa large scale formation of hopper bands will continue in Sudan until mid September. Swarms will start to form in far western Sudan by late August and these are likely to migrate in a westerly or north-westerly direction unless further rain falls leading to further breeding in situ. In central and eastern Sudan large scale swarm formation will commence by early-mid September and migration in an easterly direction towards the Red Sea and Saudi Arabia is likely where winter breeding is expected to occur. Moderate scale hopper band formation is expected in northern Ethiopia from mid-August onwards with swarms starting to form by mid September. These

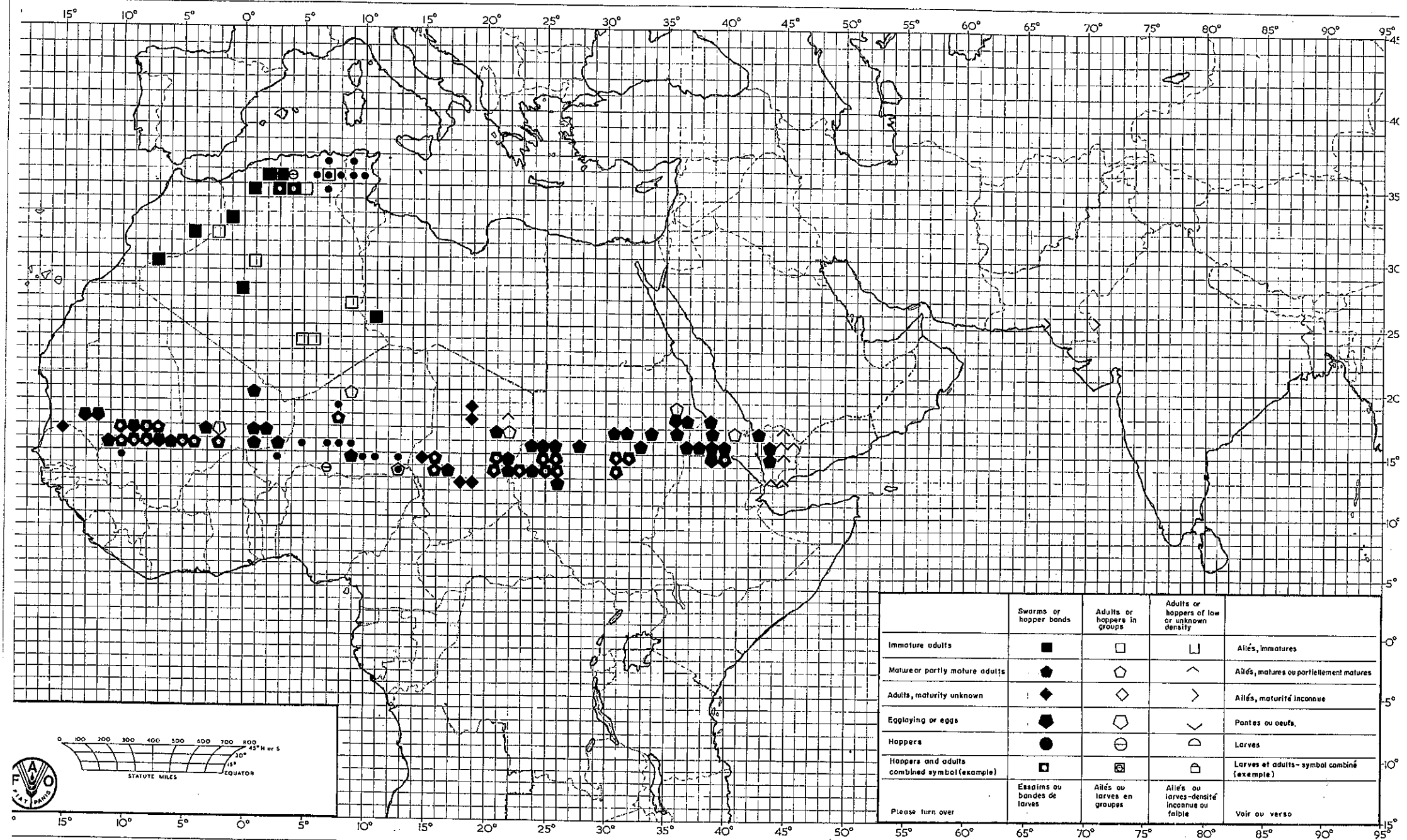
swarms are likely to move in a southerly direction into Somalia and there is risk of further movement from Somalia into Kenya.

In the Near East small to moderate scale breeding in south-western Saudi Arabia, Yemen Arab Republic and Yemen PDR will result in the formation of hopper bands during August with swarms starting to form during September. There is a risk of invasion of northern Saudi Arabia and possibly Egypt by swarms from Sudan late in the forecast period.

In South-West Asia small scale breeding has probably occurred following drought breaking rains in July but no major change in the situation is expected during the forecast period.

Rome, 18 August 1988.

Desert Locust Situation Summary No. 119 JULY - EARLY AUGUST / JUILLET - DEBUT AOUT 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 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