



FAO



EMERGENCY CENTRE FOR LOCUST OPERATIONS

DESERT LOCUST BULLETIN No. 188



Several significant Desert Locust infestations continued to persist during April. Breeding has occurred in an area south of the Atlas Mountains along the border of Algeria and Morocco as well as in northern Mauritania, resulting in the formation of small hopper bands. Control operations are in progress in all areas against hoppers and laying adults. Any infestations which escape detection and control efforts will continue to mature and move progressively south during the forecast period towards the summer breeding areas of the Sahel. Breeding has also occurred in southern Algeria, probably as a result of an earlier migration from the north, where hopper infestations in the transiens phase are present in several wadis. The extent of the breeding is uncertain. Consequently, constant and close monitoring is required by all countries.

Unprecedented rainfall occurred east of the current infestations over a widespread area of the Grand Erg Oriental of Algeria extending into southern Tunisia and western Libya. Hence, there is a moderate probability that some infestations could appear in this area and breed. Surveys are required to monitor the situation.

No significant developments occurred in West Africa where only small infestations of adults moved into Guinea Conakry from Guinea Bissau. These infestations, part of a southern circuit migration pattern, are not considered to be a significant threat. They are expected to move further east, first appearing in south-western Mali and then continuing towards north-eastern Mali. In the past, these infestations were generally weak and have not been known to breed.

The forecast period is one in which current populations progressively move towards the summer breeding areas of the Sahel of West Africa and Sudan and to the summer monsoon areas of Indo-Pakistan desert where they can appear as early as mid-May but usually not until June. Based on the current situation, these movements are expected to be on a small scale and, in the case of West Africa, may include a few small swarmlets.

The FAO Desert Locust Bulletin is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by fax, telex, e-mail, FAO pouch and airmail by the Emergency Centre for Locust Operations, AGP Division, FAO, 00100 Rome, Italy.

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WEATHER AND ECOLOGICAL CONDITIONS DURING APRIL 1994

Based on field reports, METEOSAT and ARTEMIS satellite imagery, and Météo-France synoptic and rain data. Rainfall terms: light = less than 20 mm of rain; moderate = 20 - 50 mm; heavy = more than 50 mm.

Along the southern side of the Atlas Mountains of Morocco and Algeria, favourable breeding conditions are expected to be declining due to very little rain reported during April. As a result of this and increasing temperatures, vegetation was seen to be drying out in most places except in wadis and other low-lying areas. However very unusual and significant rains associated with a Saharan depression fell over a widespread and remote area of the Grand Erg Oriental on 30 April. The rains extended from Hassi Messaoud in north central Algeria to Remada in southern Tunisia and Ghadames in western Libya. Rain fall exceeded long-term averages for April and in some places for the year, varying from 6 mm at Hassi Messaoud to 36 mm at El Borma in southern Tunisia. Light rains were also reported further north in southern Tunisia near Gafsa and Kebili during the first and last weeks of April. As a result of these unusual rains, ecological conditions are expected to improve in interdunal areas during the next month.

As a result of several atmospheric disturbances during April over the Mediterranean and the Sahara, strong northerly and westerly winds occurred at times over central Algeria which could have pushed some locusts further south and west respectively.

Although no rains were reported during April in Mauritania, conditions are favourable for breeding in some areas of the north mainly in wadis, interdunal areas and other low-lying places north-east of Nouakchott, in the Zouerate area and in north-eastern Brakna.

Elsewhere in West Africa, no significant rains were reported and the weather was hot and dry. However the Inter-Tropical Convergence Zone (ITCZ) moved north several times during April to 15°N. During these periods, such as 2-5, 11, and 18-22 April, any locusts present in Guinea Conakry could move north-east towards Mali.

Light to heavy rains fell along the southern Red Sea coastal plains of Sudan on 28 March and 6 April. In Eritrea, only isolated areas along the coast remain green, primarily the Agbanazuf Plains. The coastal plains south of Agbanazuf to northern Somalia were reported dry except for a few green patches near Silal and Mait in northern Somalia. Rains may have occurred along the northern coast of Somalia during the last two decades of April. In Ethiopia, ecological conditions are reported to be favourable along the Railway Area as a result of recent rainfall.

A late report indicated widespread moderate rains fell on the Red Sea coastal plains of Saudi Arabia and Yemen from Jizan to Hodeidah on 25-27 March as well as in other interior areas of Yemen; Hodeidah reported 33 mm. Additional rains may have fallen in the Yemen interior from Marib to Shabwa during the last two decades of April. As a result, breeding conditions are expected to be improving in these areas.

In Oman, heavy rains associated with a depression further north and a south-westerly air flow were reported in the Sharqiya area near Wadi Sal on 9 April.

During the first half of April, light to moderate rains fell along the coast and in some interior areas of Baluchistan in Pakistan where conditions are favourable for breeding; for example, Jiwani on the coastal plains near the Iran border received 45 mm on 13 April. Light to moderate rains also fell in Rajasthan of India during April; Jaisalmer reported 21 mm on the 5th and Jodhpur 12 mm and 21 mm on the 5th and 20th respectively. As a result, parts of Rajasthan are expected to be favourable for the persistence of scattered locusts.



AREA TREATED IN APRIL 1994

Algeria	593 ha	(21 March - 30 April)
Guinea Conakry	no details	(7 March - 7 April)
Mauritania	650 ha	(15-31 March)
	180 ha	(1-15 April)
Morocco	4,181 ha	(23 February - 31 March) updated
	1,109 ha	(1- 30 April)



WEST AFRICA

MAURITANIA

During the second half of March, the overall infestation continued to decline. On the 16th, a small low density swarm was treated on the coast south of Nouakchott covering 400 ha and another one was treated south-west of Akjoujt covering 250 ha. Ground surveys undertaken in north of Nouakchott to the Moroccan border, south-west of Akjoujt and east and south-east of Nouakchott in Trarza during the fortnight found only some scattered adults in the Tijirit area north of Akjoujt.

During the first half of April, several patches and bands of primarily late instar hoppers were reported in many wadis west and south-east of F'derik (2240N/1243W) and ground control teams treated 180 ha. There were also several unconfirmed reports of mature swarms seen by nomads on 2-4 April moving south-east near F'derik and near Choum (2117N/1306W). This may suggest that some swarms are present in the border areas which have started to move towards summer breeding areas in the south. No further control operations were required against adult infestations. Although there was an unconfirmed report of two swarms in Brakna, only scattered immature and mature adults were found during surveys carried out in Trarza, north-eastern Brakna and north-western Assaba up to 15 April.

GAMBIA

No locusts were reported up to 5 April.

GUINEA BISSAU

No locusts were reported up to 11 April.

GUINEA CONAKRY

A late report stated that individual immature adults and small groups/swarmlets were first seen at a few locations in the north during the second week of March. During the last two weeks of March, similar populations were seen along the coast nearly reaching the Sierra Leone border on the 28th as well as in the central interior near Mamou (1022N/1205W) on the 30th where infestations persisted up to 7 April. However, these movements were on a small and limited scale and only localized damage was reported on vegetable and fruit crops. Small scale ground control operations were undertaken during the period.

No locust information had been received from other countries in the region up to 30 April.

NORTH-WEST AFRICA

MOROCCO

No significant locust activity was reported in south-western Morocco in late March.

During 29 March - 12 April, aerial and ground control operations were undertaken against mature and laying adults present at densities up to 5 per sq. m. near Tata (2945N/0758W) and Errachidia (3156N/0426W). Despite control efforts, hatching occurred in both areas and hopper bands started forming in early April, some reaching the 5th instar by the end of the month. The majority of the infestations are in Oued Daoura and its tributaries south of Errachidia where band sizes range from 1-100 ha. Other smaller infestations are present in Oued Draa south of Tata where bands are 3-10 ha in size. Densities in both areas are 10-100 hoppers per sq. m. During the month a total of 902 ha were treated in Tata against mature adults and 162 ha in Errachidia against hoppers. Control operations continue in both areas.

ALGERIA

From 20 March to 30 April, several small, low to moderate density swarms were reported south of Bechar, primarily along Oued Saoura and in other smaller wadis near Beni Abbes (3008N/0210W)

and to a lesser extent further west near the Moroccan border in Oued Daoura (2950N/0410W). Most of these swarms were seen laying, and, subsequently, several small infestations of first instar hoppers appeared in all of these areas by mid April. During the last decade of April, some mature swarms started to move east and reached the western edge of the Grand Erg Occidental, and perhaps beyond, where they laid. Breeding has occurred in the south, probably as a result of an earlier undetected movement of adults from the north in March. The extent of the breeding is not clear. Currently, hoppers in the transiens phase at densities up to 5 per sq. m. are present in an area of 2,500 ha west of Tamanrasset in Oued Aderniba (2257N/0337E). A total of 593 ha were treated from 20 March to 30 April in the Oued Saoura area.

No locust information had been received from other countries in the region up to 30 April.

EASTERN AFRICA

SUDAN

A late report stated that isolated adults were present on the Red Sea coastal plains near Suakin (1858N/3713E) and in Tokar Delta up to 21 March.

DJIBOUTI, ERITREA, ETHIOPIA, KENYA, SOMALIA, TANZANIA and UGANDA

No locust activity was reported from 16 March to 15 April.

NEAR EAST

SAUDI ARABIA

A late report stated that there was no significant locust activity during March.

YEMEN

During a survey carried out in late March, a few isolated adults were observed on the coastal plains about 150 km east of Aden, and no locusts were reported from the coastal plains west of Aden as well as along the northern Tihama from Zabid (1412N/4319E) to the Saudi Arabia border.

EGYPT

A few isolated mature adults were reported on the extreme south-eastern Red Sea coast and adjacent areas on 20 April.

KUWAIT

No locust activity was reported up to 17 April.

OMAN

No locust activity was reported on the Batinah coast up to 9 April.

No locust information had been received from other countries in the region up to 30 April.

SOUTH-WEST ASIA

IRAN

A late report stated that a few isolated adults were present in Sistan and Baluchistan during January and February.

PAKISTAN

During the second half of March, adults moved into some interior valleys of Baluchistan where infestations at densities up to 300 per sq. km. were seen in Turbat at Badrang (2603N/6409E) and in Panjgur at Karechi (2755N/6415E) on the 24th. Adults also moved further east along the coastal plains to Uthal at Tinkanda (2533N/6650E) on the 27th.

During the first half of April, similar adult populations persisted in all of these locations; however, no breeding has been reported to date.

INDIA

Isolated adults, up to 150 per sq. km, were reported from Rajasthan in two locations of Barmer and Jaisalmer districts during the second fortnight of March.

During April, similar infestations were seen at ten locations of Jaisalmer, Bikaner and Sriganganagar during the first half of the month and at two locations of Bikaner and Jaisalmer during the second half of April.

No locust information had been received from other countries in the region up to 30 April.

**WEST AFRICA****MAURITANIA**

Infestations in the north are expected to decline due to drying conditions and migration southwards; no further breeding is expected. Low numbers of adults and perhaps a few small swarmlets could appear in summer breeding areas of the south late in the forecast period.

MALI

There is a high probability of low numbers of adults and a few small swarmlets first appearing in the south-west and moving north-east towards Gao; however, these populations are not expected to represent a significant threat. A few isolated adults may be present in the Adrar des Iforas and Tamesna. Small numbers of adults may appear during the forecast period in the Adrar des Iforas from the north.

NIGER

A few isolated adults may be present in Tamesna; small numbers of adults may appear during the forecast period from the north.

CHAD

A few isolated adults may be present in Tibesti.

BURKINA FASO

There continues to be a low probability of adults and perhaps a few small swarmlets appearing in the northwest during the forecast period as a result of the southern circuit migration.

GUINEA CONAKRY

Current infestations will move eastwards to Mali and by the end of the forecast period no further infestations are expected to remain.

SIERRA LEONE

There is a low probability that a few scattered adults may be present in the extreme north along the Guinea Conakry border; however, no significant developments are expected.

CAMEROON, GAMBIA, GUINEA BISSAU, and SENEGAL

No significant developments are likely.

NORTH-WEST AFRICA**MOROCCO**

New adults resulting from earlier breeding will appear in late May; no further breeding is expected south of the Atlas Mountains due to drying conditions. There is the possibility that a few swarms may be present in the extreme south-west. Any adults that escape control are expected to move south

towards summer breeding areas of the Sahel and no further developments are anticipated by the end of the forecast period.

ALGERIA

New adults resulting from earlier breeding will appear in late May and may form several small swarmlets; no further breeding is expected along the Moroccan/Algeria border due to drying conditions. Low numbers of adults and perhaps a few small swarmlets that escape detection and control are expected to move progressively south during the forecast period towards the summer breeding areas of the Sahel. Adult numbers are expected to increase in the southern Sahara areas as a result of any undetected breeding there and movement from the north. Small infestations may appear in the Grand Erg Oriental and breeding could occur in areas of recent rains.

TUNISIA

There is a low probability that a few adults could appear and breed in the extreme south where recent rains occurred.

LIBYA

There is a low probability that a few adults could appear in Al Hammada Al Hamra where recent rains occurred.

EASTERN AFRICA

SUDAN

Low numbers of adults are expected to appear in the summer breeding areas of central and western Sudan during the forecast period and start to breed once seasonal rains occur.

ERITREA

A few isolated adults may persist in any areas that remain green on the Red Sea coastal plains.

ETHIOPIA

A few isolated adults may occur in the Railway Area and breed in areas of recent rains.

SOMALIA

A few isolated adults may persist and breed in a few places along the northern coast where recent rains are thought to have occurred, primarily in the Mait area.

DJIBOUTI, KENYA, TANZANIA and UGANDA

No significant developments are likely.

NEAR EAST

SAUDI ARABIA

A few isolated adults may be present on the southern Tihama near Jizan.

YEMEN

Scattered adults are likely to persist on the coastal plains east of Aden and a few isolated adults may be present in interior desert areas from Shabwa to Marib.

EGYPT

A few isolated adults may persist along wadis on the south-eastern coastal plains.

OMAN

Scattered adults may be present and breeding in areas of recent rainfall in the Sharqiya.

BAHRAIN, IRAQ, ISRAEL, JORDAN, KUWAIT, LEBANON, QATAR, SYRIA, TURKEY, UAE

No significant developments are likely during the forecast period.

SOUTH-WEST ASIA

IRAN

Any isolated adults present on the south-eastern coastal plains will decline during the forecast period.

PAKISTAN

Infestations present on the western coastal plains of Baluchistan are expected to decline during the forecast period as adults move east towards summer breeding areas. Depending on rainfall, breeding may continue in the upland valleys of Baluchistan until June. A few adults could appear in the Sind-Tharparkar area from mid May onwards.

INDIA

Current infestations will persist in Rajasthan and may breed in areas of recent rainfall. Additional adults on a small scale could appear in Rajasthan and Gujarat from mid May onwards.

AFGHANISTAN

No significant developments are likely during the forecast period.



ECLO recently distributed a questionnaire regarding the Desert Locust Bulletin. We would like to encourage that the questionnaire is completed and returned to ECLO by facsimile no later than **15 May 1994**.

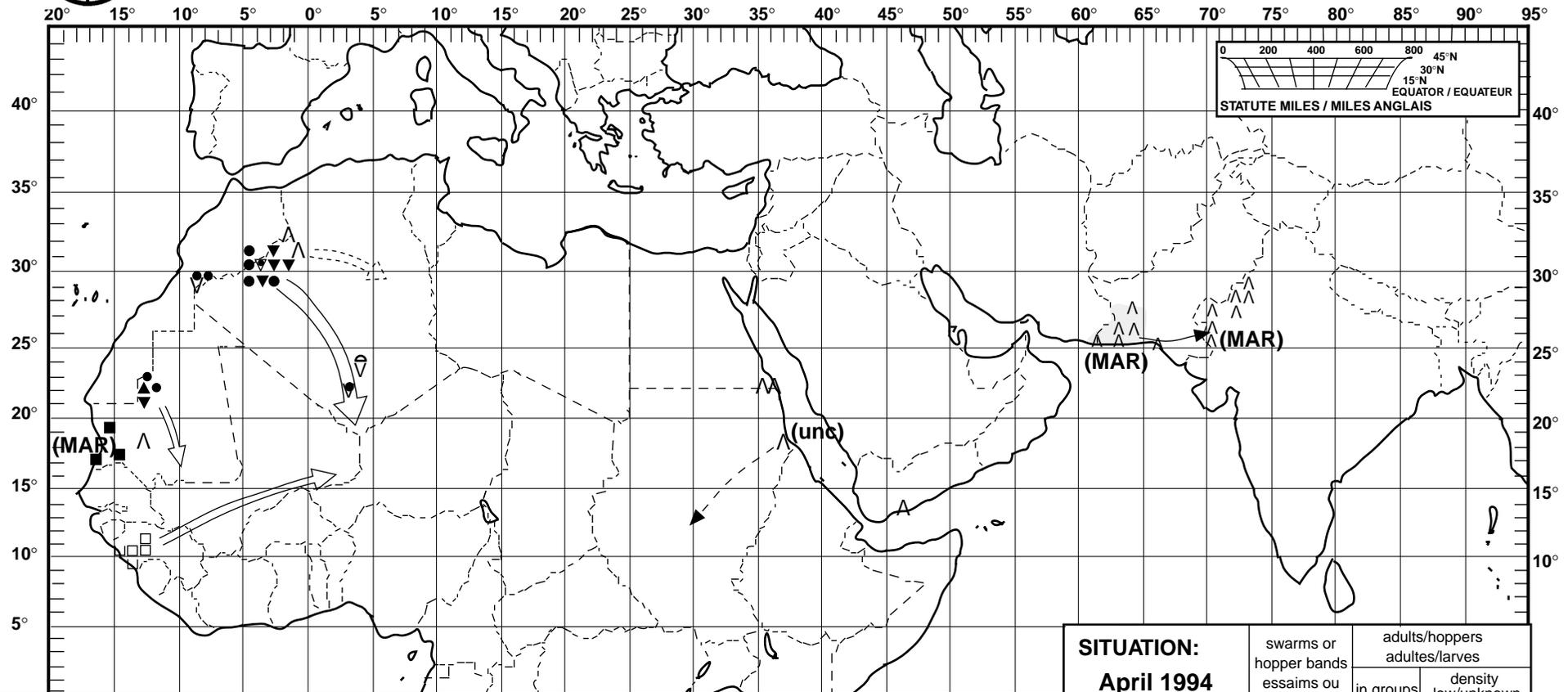
A meeting was held at FAO Headquarters on 29 April to review the current Desert Locust situation and assistance provided. The meeting was well attended by representatives of donors and locust-affected countries.

3 May 1994



Desert Locust: summary Criquet pèlerin: situation résumée

No. 188



FORECAST TO: PREVISION AU: 15.6.94	LIKELY PROBABLE	POSSIBLE POSSIBLE
current undetected breeding reproduction en cours et non détectée		
major swarm(s) essaim(s) important(s)		
minor swarm(s) essaim(s) limité(s)		
non swarming adults adultes non essaimant		

SITUATION: April 1994 avril 1994	swarms or hopper bands essaims ou bandes larvaires	adults/hoppers adultes/larves	
		in groups en groupes	density low/unknown densité faible/inconnue
immature adults adultes immatures			
mature or partly mature adults adultes matures ou partiellement matures			
adults, maturity unknown adultes, maturité inconnue			
egg laying or eggs pontes ou œufs			
hoppers larves			
hoppers & adults (combined symbol example) larves et adultes (exemple symboles combinés)			