



FAO



LOCUST, OTHER MIGRATORY PESTS, & EMERGENCY OPERATIONS GROUP

DESERT LOCUST BULLETIN No. 169



During September, low numbers of adults were present in the summer breeding areas of Pakistan and India where unusually heavy rains occurred. As a result, small scale breeding is in progress and will continue in India and probably adjacent areas of Pakistan. During the forecast period, new generation adults may move west. In the summer breeding areas of the Sahel, scattered adults were only reported in south-central and south-eastern Mauritania and in northern Chad. These are likely to breed on a small scale in localized areas of green vegetation.

It appears that the seasonal rains may have come to an early end this year in the locust breeding areas of West Africa and Sudan. Scattered adults are likely to be present in parts of northern Mali, Niger, and Sudan; however, breeding is likely to decrease during the forecast period and no significant populations are expected to arise.

Elsewhere, a few scattered adults may be present and breeding along the Tihama of Saudi Arabia and Yemen and, perhaps, in the interior as a result of recent rainfall. A few adults may appear towards the end of the forecast period in Tokar Delta on the Red Sea coast of Sudan and in adjacent areas of the Eastern region.

The FAO Desert Locust Bulletin is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by telefax, telex, FAO pouch, or mail by the Locust, Other Migratory Pests, and Emergency Operations Group, AGP, FAO, 00100 Rome, Italy.

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WEATHER AND ECOLOGICAL CONDITIONS

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.

During September, rainfall and cold cloud information suggest that the seasonal rains may have come to an early end this year in the Desert Locust breeding areas of West Africa and Sudan. The ITCZ has began its seasonal movement towards the south, reaching as far as 15°N over West Africa and 13°N over Sudan by the end of the month. A few cold clouds were present over Desert Locust breeding areas in early September; however, their occurrence progressively decreased throughout the month and by the last decade, most all of the breeding areas were free of cold clouds. Very little rain occurred in these areas and monthly rainfall totals were well below long-term averages for all weather stations reporting from the locust breeding areas.

Despite the possible early end of the rains, conditions were favourable for breeding in some areas of the Sahel during September. In southern Mauritania, green vegetation was reported in Hodh Ech Chargui in early September from Timbedra to Oualâta and east to the Mali border; by mid month, conditions had become favourable in Assaba and Tagant from Tâmcchekket, Kiffa and Magta Lahjar north to Tidjikja; unfavourable conditions were reported in western Mauritania in Brakna west of Aleg and in Trarza. In northern Mali, green vegetation was present in most wadis of the southern Adrar des Iforas within an area of about 200 km by 250 km bordered by Aguelhoc in the north, the Tilemsi Valley in the west and Tin Essako in the east; conditions were also favourable in southern Tamesna. In Niger, conditions were improving by mid month in a few areas of Tamesna near In Abangharit; however, vegetation was becoming dry in other areas from Agadez to Arlit and in the western Aïr. In northern Chad, breeding conditions were locally favourable in Tibesti near Zouar and Bardaï where moderate rains which are unusual occurred in late August. Conditions were expected to be less favourable in eastern Chad and western, central, and eastern Sudan where little rain occurred during the month.

Numerous cold clouds were present during the month over north-western Ethiopia and over the Red Sea coast of the western Arabian Peninsula extending from the Gulf of Aden to Jeddah and in the interior of Yemen near Wadi Hadhramaut. Although no reports of significant rainfall were received, breeding conditions are expected to be favourable in Yemen along the Tihma and the interior areas of Jawf, Marib, Shabwa and Lahaj as a result of heavy rainfall in August. Similar conditions may exist in adjacent areas of south-western Saudi Arabia.

In South-West Asia, exceptionally heavy rainfall occurred over a widespread area from Karachi and Bahawalpur in Pakistan to Jodhpur and Ganganagar in India during the first week of September. For example, Bahawalpur received 86 mm and, in India, Barmer received 230 mm, Jodhpur 224 mm and Ganganagar 140 mm. As a result, breeding conditions are expected to be extremely favourable throughout the entire summer breeding area.



AREA TREATED IN SEPTEMBER 1992

No control operations were reported during September.



See the last section of this Bulletin for a definition of terms used in reporting the current locust situation.

WEST AFRICA

MAURITANIA

A late report was received stating that a few isolated mature adults were observed in south-eastern Tagant and northern Hodh El Gharbi on 27-29 August.

During the first decade of September, isolated and scattered immature and a few mature adults were found at 15 (out of 99) locations surveyed. Most of these were located in southern Hodh Ech Chargui and a few were in southern Tagant, Brakna, and southern Trarza.

During the second decade, these populations had matured and additional mature adults were found in eastern Brakna, western Tagant and northern Assaba at 61 (out of 112) locations surveyed. Most of these populations were concentrated around Oualâta where adults were seen copulating.

NIGER

One immature female was reported from Agadez on the 4th. Elsewhere, no surveys were carried out up to 28 September.

CHAD

During the second and the third decades of September, isolated and scattered immature and mature adults were present in the Biltine Region west and north of Kalait (1550N/2054E). During the second half of the month, survey teams found isolated and scattered adults in north-eastern Kanem north and east of Salal (1451N/1713E) and in Tibesti south and east of Zouar (2027N/1632E) and as far north as Wadi Latouma (2147N/1750E).

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

NORTH-WEST AFRICA

MOROCCO

No locust were observed in August.

LIBYA

Scattered immature adults, at a density of 10 per hectare, were seen north of Sarir at 2745N/2200E during August.

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

EASTERN AFRICA

SUDAN

There was an unconfirmed report of a locust infestation in the Eastern Region near the Eritrean border in late August.

Locust surveys were in progress during September; however, no locust reports had been received up to the 29th. There was an unconfirmed report of locusts from Southern Darfur in mid month, although this is expected to refer to grasshoppers.

ETHIOPIA, DJIBOUTI, KENYA, TANZANIA, UGANDA

No locust were reported during August.

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

NEAR EAST

YEMEN

A late report stated that isolated mature adults were seen in the Al Jawf area during August; no further details are available.

EGYPT

No locusts were found during surveys carried out in the southern region during August.

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

SOUTH-WEST ASIA

PAKISTAN

During the second half of August, the number of infested areas increased slightly in Lasbela, Tharparkar, Nara and Cholistan deserts, where isolated adults were found at a total of 26 locations, with a maximum density of 750 per sq. km at Sadhuwala (2754N/7108E) in the Cholistan desert on the 27th.

During the first half of September, isolated adults continued to be present in the same deserts at a total of 26 locations, with a maximum density of 750 per sq. km at Rukunpur (2820N/7202E) in the Cholistan desert on the 10th.

INDIA

During the second fortnight of August, the first report of breeding during this year's season was received where isolated 1st-5th instar hoppers were present at a density of 1 per bush within an 8 sq. km area at Sejrasar (2821N/7346E) in Bikaner district. Isolated adults were also reported from 12 locations of Bikaner, Barmer and Jaisalmer districts of Rajasthan, with a maximum density of 300 per sq. km at Pochina (2612N/7015E) in Jaisalmer district on the 22nd and Buika Par (2602N/7015E) in Barmer district on the 23rd.

During the first half of September, the number of locations with adults and hoppers and adult densities slightly increased. A total of 23 locations reported isolated adults in Barmer, Jaisalmer and Bikaner districts, with a maximum density of 1,800 per sq. km at Garabdesar (2827N/7401E) in Bikaner. First to fifth instar hoppers, at a density of 1 per bush, were reported at 9 locations in Bikaner district.

During the second fortnight, isolated adults were reported from Bikaner, Jodhpur and Jaisalmer districts with a maximum density of 975 per sq. km at Dabri (2639N/7022E) in Jaisalmer district on the 16th. A single fourth instar hopper was seen at Bikampur (2745N/7209E) on the 25th.

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



FORECAST UNTIL MID NOVEMBER 1992

Forecasting terms used in this section to indicate the chances of a particular event happening are indicated below; every term is arranged within each category from most to least probable:

high probability	will, probably, almost certain, likely, expected
medium probability	may, might
low probability	possibly, perhaps, unlikely

WEST AFRICA

MAURITANIA

Breeding will continue in the south-central and south-eastern regions with low numbers of hoppers appearing early in the forecast period near Oualâta, and between Kiffa, Tidjikja and Magta Lahjar. Towards the end of the forecast period, breeding will decrease in these areas as vegetation becomes dry and the new adults start to move towards the west and north-west. As a result, adult numbers are likely to increase in Trarza and Adrar late in the forecast period.

MALI

Scattered adults are likely to be present and breeding in the southern Adrar des Iforas. If so, breeding will decrease during the forecast period in most areas and population numbers will decrease as adults move towards the north and north-west.

NIGER

Scattered adults are likely to be present and breeding in a few areas of Tamesna. If so, breeding will decrease during the forecast period in these areas and population numbers will decrease as adults move towards the north.

CHAD

Small scale breeding is likely to be in progress or occur early in the forecast period in localized areas of Tibesti. Numbers may also increase as scattered adults move in from northern Kanem, Batha and Biltine where breeding conditions are unfavourable.

BURKINA FASO, CAMEROON, GAMBIA, GUINEA BISSAU, GUINEA CONAKRY and SENEGAL

No significant developments are likely.

NORTH-WEST AFRICA

ALGERIA

Low numbers of adults may appear in southern or central areas during the forecast period as a result of northern movement out of the summer breeding areas.

MOROCCO, TUNISIA and LIBYA

No significant developments are likely.

EASTERN AFRICA

SUDAN

Low numbers of adults may appear in the Eastern Region and on the Red Sea coast by the end of the forecast period as a result of movement from summer breeding areas in the interior.

ETHIOPIA

Low numbers of adults may appear in the Western Province and on the Red Sea coast by the end of the forecast period as a result of movement from summer breeding areas.

DJIBOUTI, KENYA, SOMALIA, TANZANIA and UGANDA

No significant developments are likely.

NEAR EAST

SAUDI ARABIA

Scattered adults may be present and breeding in areas of recent rainfall or run-off on the southern Tihama and perhaps along the eastern side of the Asir Mountains near Wadi Najran.

YEMEN

Scattered adults may be present and breeding in areas of recent rainfall or run-off on the Tihama, the coastal plains west of Aden and in the interior near Wadi Al Jawf, and perhaps in Sabatyn and Wadi Hadhramaut.

OMAN

A few adults may appear in the Batinah coast at the end of the forecast period as a result of movement out of the Indo-Pakistan summer breeding area.

UAE

A few adults may appear in the Fujayrah coast at the end of the forecast period as a result of movement out of the Indo-Pakistan summer breeding area.

BAHRAIN, EGYPT, IRAQ, ISRAEL, JORDAN, KUWAIT, LEBANON, QATAR, SYRIA, and TURKEY

No significant developments are likely.

SOUTH-WEST ASIA

PAKISTAN

Small scale breeding is almost certainly in progress throughout the summer breeding area and will continue during the forecast period as a result of the heavy rainfall in early September. During the forecast period, new generation adults are likely to start moving towards Baluchistan.

INDIA

Small scale breeding will continue throughout the summer breeding area during the forecast period as a result of the heavy rainfall in early September. During the forecast period, new generation adults are likely to start moving towards the west.

IRAN

A few adults may appear in the south-east at the end of the forecast period.

AFGHANISTAN

No significant developments are likely.

1 October 1992

The following special terms are used in the Desert Locust Bulletin when reporting locusts:

Non-gregarious adults and hoppers

isolated	very few present and no mutual reaction occurring; 0 - 1 adult per 400 m foot transect (or less than 25 per ha). other terms: a few.
scattered	enough present for mutual reaction to be possible but no ground or basking groups seen; 1 - 20 adults per 400 m foot transect (or 25 - 500 per ha). other terms: some, low numbers.
group	forming ground or basking groups; more than 20 adults per 400 m foot transect (or more than 500 per ha).

Adult swarm and hopper band sizes

very small	swarm: less than 1 sq. km	band: 1 - 25 sq. m.
small	swarm: 1 - 10 sq. km	band: 25 - 2,500 sq. m.
medium	swarm: 10 - 100 sq. km	band: 2,500 sq. m - 10 ha
large	swarm: 100 - 500 sq. km	band: 10 - 50 ha
very large	swarm: more than 500 sq. km	band: more than 50 ha

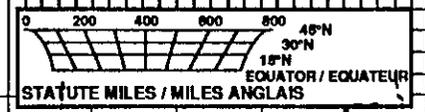
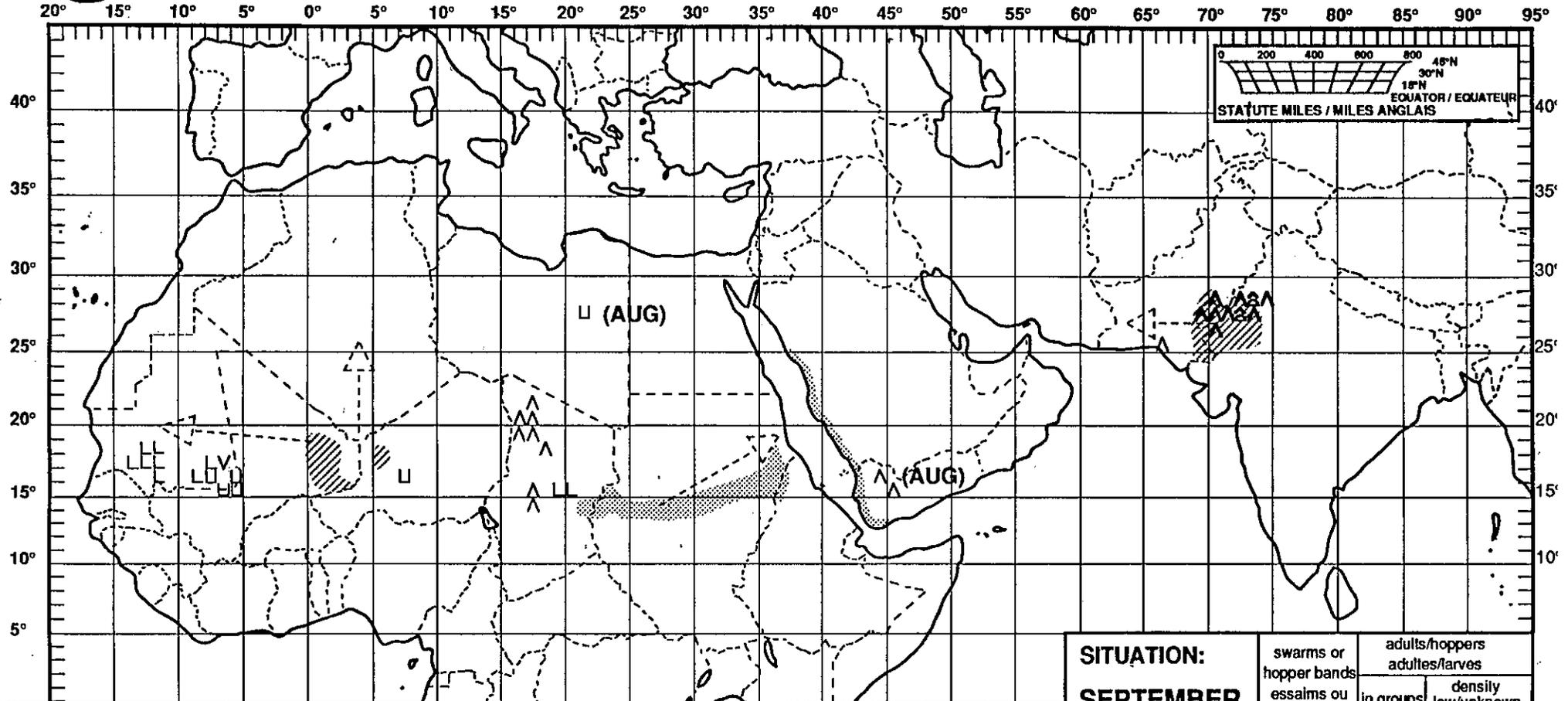
Other reporting terms

breeding	the process of reproduction from copulation to fledging.
summer	rains and breeding: July - September/October
winter	rains and breeding: October - January/February
spring	rains and breeding: February - June/July
outbreak	a marked increase in locust numbers due to concentration, multiplication and gregarisation.



Desert Locust: summary Criquet pèlerin: situation résumée

No.169



FORECAST TO: PREVISION AU:	15.11.92	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:
SEPTEMBER
1992**

	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	▲	△	L
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)	◼	◼	◼