

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 312



General Situation during September 2004
Forecast until mid-November 2004

(4 Oct 2004)

The Desert Locust situation remained extremely serious in the Sahel in West Africa during September. An increasing number of new swarms formed in Senegal, Mauritania, Mali, Niger and Burkina Faso where numerous hopper bands were present. By the end of the month, vegetation was drying out in the Sahel and many swarms were moving around the region. Some swarms reached northwest Mauritania and southern Western Sahara, Cape Verde, northern Mali, western and northeastern Niger, and southwestern Libya. Smaller infestations were present in Chad and southern Algeria. Severe crop and pasture damage was reported locally in many countries. Although control operations are in progress, more swarms will form during October and start to move towards Northwest Africa, perhaps on a larger scale than occurred in February 2004. Consequently, a major shift in populations from West Africa to Northwest Africa is expected in October. Nevertheless, a second generation of egg laying and hatching will occur in parts of the Sahel, leading to the formation of new hopper bands from mid-October onwards.

Western Region. A substantial number of hopper bands formed and developed during September in southern Mauritania, northern and central Senegal, Mali, Niger, northern Burkina Faso and parts of central and eastern Chad. By the end of the month,

numerous immature swarms were forming in all of these countries except Chad, many of which were large and dense. At the same time, vegetation was drying out in southeast Mauritania, western and central Mali and in the Sahelian zone in Niger. Consequently, some swarms moved to northwest Mauritania and southern Western Sahara where good rains fell earlier in the month. Other swarms invaded five of the Cape Verde islands. A few swarms were seen moving into northern Mali and several swarms moved to western and northeastern Niger. Immature swarms reached southwestern Libya and adults appeared in southern Algeria. Aerial and ground control operations treated 745,000 ha during September in West Africa, bringing the total area treated during the summer to 875,000 ha. Nevertheless, a substantial number of swarms will form during October and move towards the north and northwest, reaching northwest Mauritania and Western Sahara, northern Mali and Niger, and southern Algeria. Some swarms could continue north across the Sahara, eventually reaching the southern side of the Atlas Mountains in Morocco and Algeria. More swarms are expected in Libya. A smaller number of swarms are likely to reinvade northern Senegal and move progressively southwards to Gambia, southern Senegal and eventually reach Guinea Bissau and Guinea.

Central Region. The absence of confirmed reports of swarms or hopper bands in Darfur, Sudan suggests that, at most, only a few swarms originating from the spring breeding areas in Northwest Africa may have reached the region. Consequently, the threat of the current upsurge in the Western Region spreading into the Central Region is low. During September, scattered adults were present and probably breeding in parts of the summer breeding areas in Sudan. Local breeding occurred on the Red Sea coastal plains in Yemen where hoppers were forming groups

The FAO Desert Bulletin is prepared in collaboration with the FAO Regional Locust Commissions in the Western (CLCPRO), Central (CRC) and Eastern (SWAC) regions. It is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by e-mail, fax, FAO pouch and airmail by the Locusts and Other Migratory Pests Group, AGP Division, FAO, 00100 Rome, Italy. It is also available on the Internet.

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in a few places and in adjacent areas in **Saudi Arabia**, but this has no connection with the upsurge in the Western Region.

Eastern Region. Isolated adults persisted in the summer breeding areas in **Pakistan** near the Indian border. No locusts were reported in adjacent areas in Rajasthan, **India**. Locusts will decline as the monsoon rains end and vegetation dries out. Consequently, no significant developments are likely.



Weather & Ecological Conditions in September 2004

Although good rains fell in the Sahel in West Africa during September, the position of the ITCZ was further south than normal and this could signify an early end to summer rains. Breeding conditions were improving in northwest Mauritania where rains fell for a second consecutive month. Conditions also improved on the Red Sea coast in Yemen.

In the **Western Region**, the position of the Inter-Tropical Convergence Zone (ITCZ) was further south during September than its long-term average, oscillating between 14N and 17N and occasionally reached 20N and 23N during the first decade of the month. Throughout the month, the ITCZ moved progressively southwards and rainfall declined in most areas, suggesting that summer rains could end early this year. Nevertheless, moderate to heavy rain fell in southwest Mauritania and in the centre near Tidjikja. Light rain fell in the northwest near Akjoujt and Atar early in the month. In Mali, light to moderate rain fell near Tombouctou, Gao, and Menaka, in the Adrar des Iforas near Kidal and along the Algerian border. In Niger, moderate rains fell in the Sahelian zone in the southwest and south whereas only light rain fell further north in Tahoua and Tamesna. In Chad, good rains fell during the first decade of the month, except in the east. Although, breeding conditions were favourable in a large portion of the Sahel from Mauritania and Senegal to Chad, vegetation was drying out in some places, for example, in southeast Mauritania and in adjacent areas of western and central Mali where very

little rain fell during September, and in the Sahelian zone in Niger. On the other hand, conditions were improving in northwest Mauritania, southern Western Sahara and in Tamesna and the Air Mountains in Niger because of rainfall during August and September.

In the **Central Region**, good rains fell in the summer breeding areas in the interior of Sudan as far north as Khartoum, Northern Kordofan and parts of Northern Darfur during the first decade of September but declined thereafter. Light to moderate rains fell along the Red Sea and Gulf of Aden coastal plains in Yemen. Rainfall was heavier in adjacent areas near Jizan, Saudi Arabia. Consequently, conditions improved and became favourable for breeding. Light to moderate rains fell at mid-month in parts of northern and southern Oman.

In the **Eastern Region**, the summer monsoon rains have ended in Rajasthan, India and in adjacent areas in eastern Pakistan from the Tharparkar to the Cholistan deserts where hot and dry weather prevailed. As a result, conditions were not favourable for breeding.



Area Treated

Nearly 745,000 ha were treated in September, bringing the total treated so far this summer to nearly 875,000 ha. In all, some 7.2 million ha have been treated since the beginning of the upsurge in October 2003.

	Current	Summer
Algeria	2,800 ha (1-30 Sep)	2,800 ha
Burkina Faso	5,256 ha (1-15 Sep)	5,456 ha
Cape Verde	500 ha (1-20 Sep)	500 ha
Chad	6,801 ha (1-17 Sep)	6,801 ha
Libya	1,060 ha (28-30 Sep)	
Mali	218,081 ha (1-30 Sep)	234,484 ha
Mauritania	200,996 ha (1-30 Sep)	240,703 ha
Niger	98,025 ha (1-29 Sep)	106,631 ha
Senegal	211,397 ha (1-30 Sep)	276,293 ha

Note: Reporting delays and discrepancies may affect the accuracy of these figures.



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

During September, hopper bands at densities up to 3,000 hoppers/m² continued to develop and new swarms formed south of 17N, extending from the Atlantic coast to the Malian border in the east. Similar infestations were also present in central areas south of Tidjikja (1833N/1126W). Laying and hatching continued in the southeast near Aioun El Atrous (1639N/0936W) and Nema (1636N/0715W), in the southwest near Aleg (1703N/1355W) and along the coast south of Nouakchott during the first two decades. Throughout the month, an increasing number of new swarms formed, at densities up to 2,000 adults/m², and were rapidly maturing. The swarms varied in size from 1 to 30 km², but a few were even larger. Vegetation started drying out in the southeast by mid-month and many swarms moved towards the northwest and west. On the 19th, a few swarms were reported in Nouakchott and in the Atar and Adrar regions in the northwest. During the last week of September, some swarms had become mature and were seen laying eggs south of Aioun El Atrous. Control operations treated 200,000 ha during September, of which 133,000 ha were by air.

• FORECAST

A substantial number of swarms will continue to form in the summer breeding areas in the south. Most of these swarms will move to the west, centre and northwest of the country and eventually lay eggs that could hatch and form bands by the end of the forecast period. Some swarms could move into northern Senegal. In areas where conditions remain favourable, a second generation of breeding will continue in the south, albeit on a smaller scale than the first generation, and hatching and band formation could start from mid October onwards. Second generation swarms could start to form in the south during the second half of November.

Senegal

• SITUATION

During the first decade of September, about a dozen mature swarms were seen in the north and centre, and more laying, hatching and band formation occurred in the regions of Louga, Thies and Fatick. By the end of the decade, hopper bands had reached fifth instar near Linguere (1524N/1507W) and in the Senegal River Valley. Breeding had also extended as far south as Dakar where early instar hopper bands were present.

During the second half of the month, fledging occurred and an increasing number of immature swarms formed in the north and centre. Mainly fifth instar hopper bands, at densities up to 1,000 hoppers/m², were also present. During the last week of September, the number of hopper bands declined and several large, dense swarms were forming and seen along the coast near Saint Louis (1601N/1629W). Severe damage was reported on crops and pasture. Aerial and ground control operations treated 211,000 ha during September.

• FORECAST

Hopper bands will continue to develop during October but will decline as an increasing number of immature swarms form. Most of these swarms are expected to move northwards while some may move southwards with winds associated with the Inter-Tropical Convergence Zone. In areas where conditions remain favourable, a second generation of breeding could occur with hatching and band formation from late October onwards. There is a moderate risk of swarms appearing from the east and reinvading northern and central areas.

Mali

• SITUATION

During September, numerous hopper bands continued to form and develop in the Sahelian zone in the west between Kayes (1426N/1128W) and Nara (1510N/0717W), and in the regions of Segou, Mopti, Tombouctou, and Gao. Most of the hoppers were fledging and immature adults started forming swarms after the first week of the month. Numerous small swarms were seen from the 11th onwards along the Mauritanian border, at Mopti (1430N/0415W), and in the Segou and Tombouctou regions. Late hatching occurred up to about mid-month in Segou, Mopti, Tombouctou regions, and near Gourma (1653N/0155W) and Menaka (1554N/0218E). By the end of the month, infestations had reportedly declined in the west due to control operations and emigrating swarms. Significant damage was reported on vegetables, cereals, rice and pasture in all regions.

In the north, the situation was relatively calm in early September and only small-scale breeding was underway in the Adrar des Iforas. By mid-month, newly formed swarms from the Sahelian zone had started moving to the Timetrine, Adrar des Iforas and Tamesna. Aerial and ground control operations treated



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nearly 220,000 ha during September, mostly in the Gao and Tombouctou regions.

• FORECAST

Numerous swarms will form in the Sahel throughout the forecast period. Most of these swarms will move towards the north (Timetrine, Tilemsi Valley, Adrar des Iforas and Tamesna) while others are likely to move northwest into Mauritania and a few could move west into Senegal. In areas where conditions remain favourable, a second generation of breeding could occur with hatching and band formation from late October onwards.

Burkina Faso

• SITUATION

During the first half of September, numerous hopper bands continued to form in the north between Djibo (1409N/0138W), Dori (1403N/0002W) and the Malian border. By mid-month, most of the hoppers were in the third and fourth instar. Some 29 villages were reportedly affected and nearly 20,000 ha were estimated to be infested. Control operations treated 5,256 ha during the first half of September.

During the last week of the month, there was an increasing number of reports of immature swarms at densities of about 200 adults/m², many of which were seen flying. Some of these may have arrived from nearby infestations in Mali and Niger while others are likely to have formed from local infestations. On the 29th, a swarm was seen south of the infested areas at Bani (1343N/0012W). Severe crop damage was reported.

• FORECAST

An increasing number of swarms will form in the north. Although most of these swarms will move northwards out of the country, there is a slight risk that a few swarms could move into the central areas.

Niger

• SITUATION

During September, breeding activity increased in the Tamesna where laying by swarms continued until the 20th, and hatching and band formation occurred further east and north than in the previous month. Numerous transiens adults and groups were seen in the northwest during the first decade. Although fledging commenced early in the month north of Tahoua (1457N/0519E) in central Tamesna,

most of the bands were second and third instar at mid-month. Immature swarms started forming from the 20th onwards and, thereafter, several swarms were seen in the southwest near Tillaberi (1428N/0127E), north of Arlit (1843N/0721E), in the central and eastern Air Mountains and in the northeast near Bilma (1846N/1304E). In the Air Mountains, small adults groups were laying eggs in the Talak and eastern Air regions early in the month. In the Sahelian and agriculture zones further south, laying by swarms, hatching and band formation continued during September near Tahoua, Tillaberi and Zinder (1346N/0858E). Control operations treated 98,000 ha during September.

• FORECAST

A few hopper bands will form in Tamesna during October from late first generation breeding. An increasing number of swarms are expected to appear in Tamesna. Most of these swarms are likely to move northwards while others will move to the Air Mountains. In areas where conditions remain favourable, a second generation of breeding could occur with hatching and band formation from mid October onwards and swarm formation after mid November.

Chad

• SITUATION

During September, hopper groups and bands of all instars, at densities up to 130 hoppers/m², were mixed with scattered adults in the central region of Batha between Ati (1311N/1820E) and Beurkia (1523N/1800E), in the northeastern region of Ennedi between Arada (1501N/2040E) and Iriba (1507N/2215E), and in the eastern region of Ouaddai near Kalait (1550N/2054E). An immature swarm was seen near Ati and Iriba during the first week of the month. Crop damage was reported in the three regions. No locusts were seen in the Lac and Kanem regions. Control operations treated 6,800 ha from 1 to 17 September.

• FORECAST

Low to moderate numbers of adult groups and swarms are likely to form in parts of Batha, Ennedi and Ouaddai regions. Most of these swarms are expected to move towards the northwest although a few infestations may persist in areas where conditions remain favourable, and may eventually breed.

Cape Verde Islands

• SITUATION

During the last decade of August, small hopper bands formed at densities up to 1,000 hoppers/m², on the islands of Boa Vista, Maio and Santiago because of egg laying by swarms that arrived in early July and August. By the end of the month, some of the hoppers

had reached third instar.

During September, hatching and band formation continued on Maio and Santiago. By mid-month, the hoppers had reached fourth and fifth instar. In all, some 500 ha were estimated to be infested with hopper bands and were treated. Significant damage was reported on vegetables and pasture. On the 20th and 21st, about a dozen mobile immature swarms invaded the islands of Sto Antao, San Nicolau, Boa Vista, Fogo and Sal. These came from current infestations in Senegal and Mauritania.

• **FORECAST**

A few small swarms are likely to form in currently infested areas. There is a moderate risk that these swarms will be supplemented by low numbers of swarms arriving from summer breeding areas in West Africa during periods of easterly winds.

Gambia

• **FORECAST**

Low numbers of swarms are likely to arrive from the north at any time during the forecast period as the Inter-Tropical Convergence Zone moves southward. Some of these could remain and eventually breed while others are likely to continue south and southeast.

Guinea Bissau

• **FORECAST**

Some swarms could arrive from the north from mid-October onwards as the Inter-Tropical Convergence Zone moves southward.

Guinea

• **FORECAST**

A few swarms could arrive from the north from late October onwards as the Inter-Tropical Convergence Zone moves southward.

Benin, Cameroon, Cote d'Ivoire, Ghana, Liberia, Nigeria, Sierra Leone and Togo

• **FORECAST**

No significant developments are likely.

Algeria

• **SITUATION**

During the second decade of September, mature adults at densities of up to 80/m² were seen laying eggs in the extreme south near the Malian border and Tin Zaouatene (1958N/0258E). Patches of first to third instar hoppers were present in the same area. Other infestations may be present between Tamanrasset (2250N/0528E) and the Niger border near In Guezzam (1937N/0552E). During the last decade of the month, immature adults arrived from the south near Tin Zaouatene. Control operations treated 2,800

ha during September.

• **FORECAST**

Several swarms are likely to form along the Malian border. Additional swarms from the summer breeding areas in the Sahel are expected to appear in the south and move progressively northwards during periods of warm southerly winds throughout the forecast period. Consequently, swarms could continue to the central Sahara (Tindouf, Adrar, In Salah, Djanet and Illizi) and perhaps reach the southern side of the Atlas Mountains.

Morocco

• **SITUATION**

On 23 September, groups of adults were reported in the south of the Western Sahara near Bir Gandouz at Chyarate (2157N/1631W) where 270 ha were infested with locusts at densities of 10-30 adults/m². No locusts were reported along the southern side of the Atlas Mountains near Errachidia and Bouarfa.

• **FORECAST**

Substantial numbers of swarms will appear in the Western Sahara from summer breeding areas in Mauritania. By the end of the forecast period, some of these may lay eggs in areas where breeding conditions are favourable. There is a risk that some swarms could reach as far north as the Draa Valley.

Libyan Arab Jamahiriya

• **SITUATION**

During the second decade of September, scattered immature Desert Locust adults mixed with higher numbers of African Migratory Locusts were present in the Kufra (2410N/2325E) and Irawin (2629N/1215E) Agriculture Projects. On the 28th, several immature swarms, at densities of 30-70 adults/m², invaded the southwest near Ghat (2459N/1011E). Control operations were immediately undertaken and treated 1,060 ha.

• **FORECAST**

More swarms from the summer breeding areas in the Sahel are expected to appear in the southwest near Ghat and progressively move northwards to Ghadames and the Hamada al Hamra.

Tunisia

• **SITUATION**

No reports received.



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• **FORECAST**

No significant developments are likely.

CENTRAL REGION

Sudan

• **SITUATION**

During September, scattered mature adults, at densities up to 600 adults/ha, were present in Northern Kordofan north El Obeid (1311N/3010E) and near Wadi Milk at 1553N/2808E. No locusts were seen in the north (Baiyuda Desert and Dongola area), along the Atbara River and on the western side of the Red Sea Hills.

• **FORECAST**

Locust numbers will decline in the summer breeding areas as vegetation dries out. Scattered adults could appear along the Atbara River, on the western side of the Red Sea Hills and on the Red Sea coastal plains. No significant developments are likely.

Eritrea

• **SITUATION**

No reports received.

• **FORECAST**

Low numbers of locusts are likely to be present and breeding on a small scale in the western lowlands.

Somalia

• **SITUATION**

During September, no locusts were seen during surveys carried out on the plateau and escarpment between Boroma (0956N/4313E) and Hargeisa (0931N/4402E).

• **FORECAST**

No significant developments are likely.

Ethiopia

• **SITUATION**

No locusts were seen during surveys carried out in the eastern region during September.

• **FORECAST**

No significant developments are likely.

Djibouti

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Egypt

• **SITUATION**

During September, isolated adults mixed with mainly African Migratory Locust and local grasshoppers were present on one farm near Sh. Oweinat (2219N/2845E). No Desert Locust were seen elsewhere in the Western Desert.

• **FORECAST**

Isolated Desert Locust may persist on some farms in the southern Western Desert. No significant developments are likely.

Saudi Arabia

• **SITUATION**

During September, small-scale breeding occurred on the southern coastal plains of the Red Sea near Jizan (1656N/4233E) where isolated hoppers, fledglings and immature adults were present in the second half of the month.

• **FORECAST**

Locust numbers are likely to increase but remain below threatening levels near Jizan where additional breeding could occur in areas of recent rainfall.

Yemen

• **SITUATION**

During September, solitary and transiens late instar hoppers, at densities of 4-10 hoppers/m², fledglings and immature adults were present on the northern Red Sea coastal plains between Al Zuhrah (1541N/4300E) and Midi (1619N/4248E). Scattered adults were present further south between Al Qutai (1454N/4312E) and Bayt Al Faqih (1430N/4317E).

• **FORECAST**

Locust numbers are likely to increase on the Red Sea coastal plains, causing a few groups of hoppers and adults to form. Additional breeding could occur in areas of recent rainfall.

Oman

• **SITUATION**

No locusts were reported in the north during September.

• **FORECAST**

No significant developments are likely.

Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Qatar, Syria Arab Republic, Tanzania, Turkey, UAE and Uganda

• **FORECAST**

No significant developments are likely.

EASTERN REGION

Iran

• **SITUATION**

No locusts were seen along the southern coastal

plains during September.

• **FORECAST**

No significant developments are likely.

Pakistan

• **SITUATION**

During the second half of August, isolated mature adults persisted along the Indian border in Khairpur and Cholistan Deserts.

During the first half of September, locust numbers declined in the above areas.

• **FORECAST**

No significant developments are likely.

India

• **SITUATION**

No locusts were reported from 15 August to 27 September.

• **FORECAST**

No significant developments are likely.

Afghanistan

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.



Announcements

Locust reporting. Affected countries are kindly reminded to make sure that all locust situation reports are sent to FAO HQ by the 28th day of the month so the information can be included in the FAO bulletin for the current month; otherwise, it will not appear until the following month. Reports should be sent even if no locusts were found or if no surveys were conducted.

Reporting by e-mail. After each survey or control operation, affected countries should send completed *FAO Desert Locust Survey and Control Forms* or the RAMSES output file with a brief interpretation of the results by e-mail to eclo@fao.org.

Locust archives. Desert Locust reports received by FAO from affected countries from 1952 to the present are available on a series of four CDs in PDF. Please contact the Locust Group for more details.

Upsurge photos. Pictures of the current upsurge in the Western Region are available on the Internet at: www.fao.org/news/global/locusts/outbreakpix04.htm

Publications on the Internet. New FAO publications and meeting reports are available for

downloading at www.fao.org/news/global/locusts/pubslst.htm:

- Contingency planning spreadsheets and simulations for outbreaks, upsurges and plagues (English, French)
- 8th Desert Locust Control Committee Technical Group meeting report (English, French)
- FAO Desert Locust Standard Operating Procedures (SOP) for survey, control and aerial operations (English, Arabic)
- FAO Desert Locust Guidelines – Arabic version in PDF is now available for downloading

Assistance provided. Details of assistance provided by donors to the current locust campaign are available on the Internet at: www.fao.org/news/global/locusts/donors/donors.htm.

Crop assessment mission. An FAO/WFP mission will visit locust-affected countries in West Africa during October to assess the impact of locust damage on the summer harvest. Results should be available by the end of the month and will be posted on FAO's locust web pages (www.fao.org/news/global/locusts/locuhome.htm).

2004-05 events. The following meetings are scheduled:

- **Donor briefing.** The FAO Director-General will chair a donor meeting, Rome, 13 October
- **EMPRES/CR.** 12th Liaison Officers meeting, Hurghada (Egypt), 9-13 October
- **Pesticide Referee Group.** 9th meeting, Rome, 18-21 October
- **Desert Locust Control Committee.** Extraordinary session, Rome 29 November – 2 December
- **EMPRES/WR.** 3rd Liaison Officers meeting, Dakar (Senegal), 13-17 December
- **SW Asia Commission.** 24th session, Delhi (India), 10-14 January 2005

Press release. Several press releases on the current Desert Locust emergency have been recently issued by FAO. These are available at: <http://www.fao.org/newsroom/en/index.html>.



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Glossary of terms

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

NON-GREGARIOUS ADULTS AND HOPPERS

ISOLATED (FEW)

- very few present and no mutual reaction occurring;
- 0 - 1 adult/400 m foot transect (or less than 25/ha).

SCATTERED (SOME, LOW NUMBERS)

- enough present for mutual reaction to be possible but no ground or basking groups seen;
- 1 - 20 adults/400 m foot transect (or 25 - 500/ha).

GROUP

- forming ground or basking groups;
- 20+ adults/400 m foot transect (or 500+/ha).

ADULT SWARM AND HOPPER BAND SIZES

VERY SMALL

- swarm: less than 1 km² • band: 1 - 25 m²

SMALL

- swarm: 1 - 10 km² • band: 25 - 2,500 m²

MEDIUM

- swarm: 10 - 100 km² • band: 2,500 m² - 10 ha

LARGE

- swarm: 100 - 500 km² • band: 10 - 50 ha

VERY LARGE

- swarm: 500+ km² • band: 50+ ha

RAINFALL

LIGHT

- 1 - 20 mm of rainfall.

MODERATE

- 21 - 50 mm of rainfall.

HEAVY

- more than 50 mm of rainfall.

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

RECESSION

- period without widespread and heavy infestations by swarms.

REMISSION

- period of deep recession marked by the complete absence of gregarious populations.

OUTBREAK

- a marked increase in locust numbers due to concentration, multiplication and gregarisation which, unless checked, can lead to the formation of hopper bands and swarms.

UPSURGE

- a period following a recession marked initially by a very large increase in locust numbers and contemporaneous outbreaks followed by the production of two or more successive seasons of transient-to- gregarious breeding in complimentary seasonal breeding areas in the same or neighbouring Desert Locust regions.

PLAGUE

- a period of one or more years of widespread and heavy infestations, the majority of which occur as bands or swarms. A major plague exists when two or more regions are affected simultaneously.

DECLINE

- a period characterised by breeding failure and/or successful control leading to the dissociation of swarming populations and the onset of recessions; can be regional or major.

REGIONS

WESTERN

- locust-affected countries in West and North-West Africa: Algeria, Chad, Libya, Mali, Mauritania, Morocco, Niger, Senegal, Tunisia; during plagues only: Burkino Faso, Cape Verde, Gambia, Guinea Bissau and Guinea Conakry.

CENTRAL

- locust-affected countries along the Red Sea: Djibouti, Egypt, Eritrea, Ethiopia, Oman, Saudi Arabia, Somalia, Sudan, Yemen; during plagues only: Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Qatar, Syria, Tanzania, Turkey, UAE and Uganda.

EASTERN

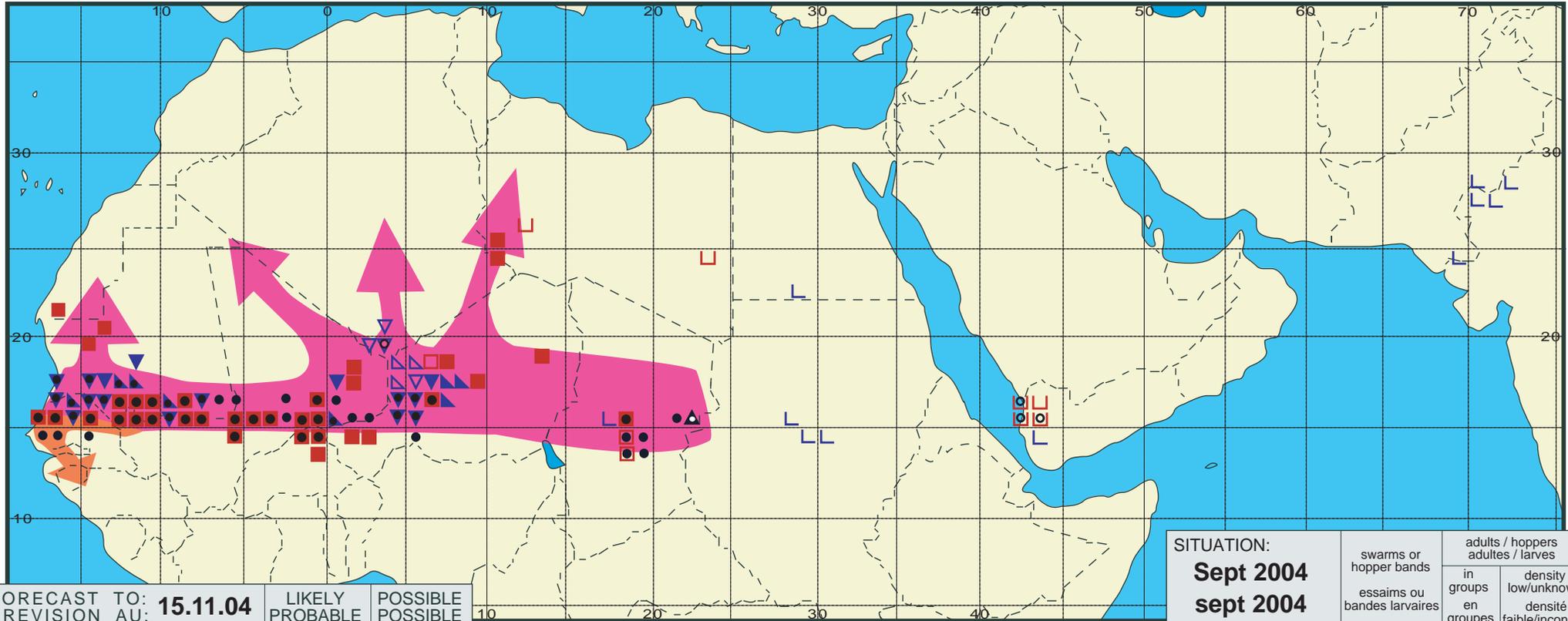
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU: 15.11.04	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favorables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarm(s) essaim(s) limité(s)		
non swarming adults adultes non essaimant		

SITUATION: Sept 2004 sept 2004	swarms or hopper bands	adults / hoppers adultes / larves	
	essaims ou bandes larvaires	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)			