

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 315

(4 January 2005)



General Situation during December 2004 Forecast until mid-February 2005

The Desert Locust situation remained serious during December in the Western Region where intensive control operations continued against immature swarms in Morocco, Algeria and Mauritania. Nevertheless, the scale of these operations declined during the month. In West Africa, some swarms moved along the Southern Circuit migration route and invaded Gambia, southern Senegal and Guinea Bissau. A few swarms may have also reached Guinea. Most of the current locust populations are likely to remain immature except in northwest Mauritania where limited breeding could occur. In the Central Region, winter breeding commenced at the end of the month on the Red Sea coast in northeast Sudan and southeast Egypt where hatching and band formation are likely to take place in the coming weeks.

Western Region. Numerous immature swarms were present in and near the Atlas Mountains in Morocco and Algeria during December. Other swarms were scattered throughout the northern and central Sahara in Algeria and in western Libya. A few swarms were reported along the Mediterranean coast near Tripoli. In West Africa, a substantial number of small immature swarms were moving about in southern and central Mauritania. Late forming swarms from summer breeding in the Sahel reinvaded parts of southeastern Mauritania and eastern

Senegal. Some of these swarms continued south along the Southern Circuit into Gambia and southern Senegal, reaching central Guinea Bissau by the end of the month and perhaps northern Guinea. These swarms are likely to remain immature and persist in southern Senegal and Guinea. Aerial and ground control operations treated about 880,000 ha in the region during December, compared to 2.2 million in the previous month.

Central Region. There were numerous reports of immature adult groups and swarms in northern Egypt as well as in the Western Desert and the Sinai Peninsula during December. Some of the adults reached the winter breeding areas along the coastal plains Red Sea in southern Egypt where a few had become mature and were breeding. In adjacent areas of northeast Sudan, two swarms laid eggs at the end of the month. Small immature adult groups were present on the northern Red Sea coast in Saudi Arabia, and scattered adults were seen on the Red Sea coastal plains near Tokar Delta, Sudan. Other scattered adults of local origin were present on the Red Sea coast in Yemen. Local breeding was in progress in northwest Somalia. During the forecast period, hatching and the formation of small hopper groups and bands are expected to occur in some places along the Red Sea Trench.

Eastern Region. No locusts were reported during December in the Region, and no significant developments are likely.

The FAO Desert Bulletin is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by fax, e-mail, 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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Weather & Ecological Conditions in December 2004

Good rains fell in northern Morocco and Algeria during December. Breeding conditions were favourable there as well as in parts of central and northern Mauritania. Although rain fell in parts of the winter breeding areas along the Red Sea, conditions were generally less favourable and vegetation was becoming green in only a few places.

In the **Western Region**, the Inter-Tropical Convergence Zone (ITCZ) was located south of 10N. Breeding conditions were favourable in a few places in northern and central Mauritania where good rains fell in November. Vegetation continued to dry out in the summer breeding areas in the Sahel in southern Mauritania, in central and western Mali, in the Tamesna in Niger and in Chad. Small patches of green vegetation were present in the Adrar des Iforas in northern Mali and in parts of the southern Air Mountains in Niger. In Northwest Africa, light to moderate rain fell at times along the southern side of the Atlas Mountains in Morocco and Algeria. Heavy rain fell during the first decade of December in the Souss Valley. Light rain also fell in parts of the northern Sahara in Algeria near Bechar and Laghout and in southwest Libya near Ghat and in the Al Hamada Al Hamra. Consequently, breeding conditions are favourable in most of these areas.

In the **Central Region**, breeding conditions remained generally unfavourable along the western side of the Red Sea. In Sudan, 66 mm of rain reportedly fell in the Tokar Delta on 6 December. Vegetation was becoming green in parts of the northern Red Sea coast. Breeding conditions were locally favourable in the interior near Wadi Diib probably from earlier rainfall and runoff. In Egypt, moderate rain fell in the north and in the Sinai Peninsula on the 18th and along the Red Sea coastal plains during the last week. In Saudi Arabia, moderate to heavy rain was reported on the southern coastal plains of the Red Sea near Jizan, and light rain fell in parts of the adjacent coastal area in Yemen where breeding conditions had become unfavourable. Light

to moderate rain occasionally fell in parts of northern Oman.

In the **Eastern Region**, no significant rain fell and dry conditions prevailed.



Area Treated

About 1 million ha were treated in December, bringing the total area treated since the beginning of the upsurge (October 2003) to 12 million ha.

| | Current month | Campaign cumulative |
|--------------|-----------------------|---------------------|
| Algeria | 441,341 ha (1-31 Dec) | 1,261,257 ha |
| Cape Verde | 450 ha (11-29 Dec) | 3,337 ha |
| Egypt | 47,675 ha (1-27 Dec) | |
| Gambia | 3,294 ha (1-25 Dec) | 3,294 ha |
| Libya | 14,133 ha (1-29 Dec) | 64,764 ha |
| Mali | 3,100 ha (1-10 Dec) | 299,277 ha |
| Mauritania | 59,987 ha (1-31 Dec) | 1,072,540 ha |
| Morocco | 384,796 ha (1-31 Dec) | 1,921,994 ha |
| Niger | 2,535 ha (1-10 Dec) | 202,615 ha |
| Saudi Arabia | 20 ha (2 Dec) | |
| Senegal | 52,484 ha (1-31 Dec) | 755,376 ha |

Note: Reporting delays and discrepancies may affect the accuracy of these figures; NR = not reported.



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

During December, numerous small and dense immature swarms were seen in the south and southeast. Some of these were arriving in the two Hodhs from adjacent areas in Mali while others were moving along the Senegal River Valley and throughout the south and centre of the country. A few immature groups and swarms were present in the northwest between Atar (2032N/1308W) and Zouerate (2244N/1221W). In the north, scattered adults were seen at the end of the first week near Bir Moghreïn (2510N/1135W) and in the El Hank area. By the end of the month, locust infestations were declining in the south as conditions continued to dry out. Aerial and ground control operations treated nearly 60,000 ha during December.

• FORECAST

The situation will continue to improve in the south where only small residual populations are likely to

remain in those areas that stay green. Small scale breeding in the northwest in Inchiri and near Zouerate could lead to hatching and band formation during the forecast period. If rainfall occurs and temperatures are unusually warm in the north, additional locusts may appear and eventually lay eggs that could start to hatch by mid February.

Senegal

• SITUATION

During the first two decades of December, residual populations of immature swarms were present near Saint Louis (1601N/1629W). On the 3rd, immature swarms from late summer breeding in the Sahel appeared in the Casamance region in the south and on the 5th in Tambacounda in the east. From the 8th onwards, more swarms arrived between Sediou (1251N/1535W) and Velingara (1310N/1410W) in the Casamance as well as south of Tambacounda (1345N/1340W). By the end of the second decade, immature swarms were reported in the extreme southeast at Saraya (1250N/1146W) near the borders of Guinea and Mali. At the end of the month, an immature swarm with a density of 12 adults/m² was seen in the southwest near Bignona (1248N/1618W) and other swarms were present in the Niokoloba National Park in the east. Aerial and ground control operations treated 52,484 ha during December.

• FORECAST

Locust numbers will decline in the north. Low numbers of swarms are likely to persist in the south and east where a few could eventually mature.

Mali

• SITUATION

On 5 December, an immature swarm from late summer breeding in the Sahel appeared in the west about 50 km south of Kayes (1426N/1128W). During the first decade, control teams treated 3,100 ha in this region. In the north, immature adults and groups, at densities up to 42,000/ha, were present in parts of the Adrar des Iforas, the Tilemsi Valley and in the Timetrine.

• FORECAST

Moderate numbers of locusts, including a few groups are expected to persist, mature and eventually lay eggs in those areas that remain favourable in the Adrar des Iforas, Tilemsi Valley and Timetrine. Hatching could occur by the end of the forecast period and hoppers may form groups and a few bands.

Niger

• SITUATION

During December, immature adults and groups were present in Tamesna north of 17N between Agadez (1700N/0756E) and the Malian border.

Groups of mature adults were seen in a few places as well as in the southern Air Mountains where 2,535 ha were treated on 1-10 December.

• FORECAST

Moderate numbers of locusts, including a few groups are expected to persist, mature and eventually lay eggs in those areas that remain favourable in the Air Mountains. Hatching could occur by the end of the forecast period and hoppers may form groups and a few bands.

Chad

• SITUATION

No reports received

• FORECAST

Low numbers of adults may be present in parts of the northeast.

Cape Verde Islands

• SITUATION

In early December, hatching continued on the islands of Santo Antao, Sao Nicolau and Santiago where small bands had reached the second and third instar stages. At mid-month, some 70 small bands of second to fourth instar hoppers of up to 2,500 m² in size were reported on Fogo Island. On the 24th, a locally-bred swarm was seen on Santiago. At the end of the month, more hatching had occurred on Fogo where some 130 first instar bands at densities of more than 100 hoppers/m² were present. New hatchlings were also reported on Santo Antao. Crop damage occurred in some places. Control operations treated 450 ha during December.

• FORECAST

Additional hatching and the formation of small groups and bands may occur on some islands. If uncontrolled, a few small groups and swarms could form.

Gambia

• SITUATION

On 1 December, a small immature swarm moved from the northern side of the Gambia River to the south bank in the Central River Division. During the remainder of the month, swarms moved back and forth across the Senegal River into the North Bank Division and the Upper and Lower River Divisions. Some damage was reported on vegetables, trees,



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rice and cereals. Aerial and ground control operations treated nearly 3,300 ha during December.

• FORECAST

Although the majority of the swarms that arrived during December should move out of the country into neighboring areas of Senegal, there is a low risk that a few infestations may persist and mature.

Guinea Bissau

• SITUATION

On 21 December, immature swarms from southern Senegal arrived in the north near Farim (1230N/1509W). On the 27th, immature swarms at densities of up to 200 adults/m² were reported in the east of the country near Bafata (1209N/1438W).

• FORECAST

Low numbers of immature swarms are expected to persist in the centre and east.

Guinea

• FORECAST

A few small immature swarms are almost certainly present in the north near the Senegal border. If so, some of these could move towards the centre and east of the country where they are expected to remain immature.

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

• FORECAST

No significant developments are likely.

Algeria

• SITUATION

During the first decade of December, additional immature swarms appeared in the extreme south, in the southwest near Tindouf (2741N/0811W) and Bechar (3135N/0217W), and in the east near Illizi (2630N/0825E) and El Oued (3323N/0649E). During the remainder of the month, some of these swarms moved further north to supplement those that were already present in the central Sahara regions of Ghardaia, Ouargla and El Oued west of the Grand Erg Oriental, along the southern side of the Atlas Mountains in the regions of El Bayadh, Daghout and Djelfa, and in the northwest regions of Sidi Bel Abbes and Saïda. Aerial and ground control operations treated 441,341 ha during December.

• FORECAST

Moderate numbers of immature swarms will persist in the central and northern Sahara as well as in parts of the Atlas Mountains and in the northwest. The majority of the swarms will remain immature because of low temperatures. Nevertheless, some swarms could mature and eventually lay eggs in areas where temperatures are warmer and rainfall has occurred.

Morocco

• SITUATION

During the first decade of December, immature swarms were concentrated mainly in the southwest between Guelmim (2859N/1003W), Tan-tan (2827N/1109W) and Zag (2800N/0920W), in the Draa Valley south of Tata (2944N/0758W) and in the northeast between Taza (3416N/0401W) and Oujda (3441N/0145W). A few swarms reached the coastal plains north of Agadir (3030N/0940W) to Safi (3218N/0914W).

During the second decade, immature swarms persisted in the above areas. Additional swarms were reported along the southern side of the Atlas Mountains between Zagora (3019N/0550W) and Bouarfa (3232N/0159W) and on the Souss-Massa plains between Sidi Ifni (2924N/1012W) and Agadir. Other swarms were present on the plateaux of the Atlas near Midelt (3241N/0443W). During the third decade, locust infestations persisted in the above areas but were declining. Aerial and ground control operations treated nearly 385,000 ha during December.

• FORECAST

Moderate numbers of immature swarms will persist along the southern side of the Atlas Mountains as well as in some of the valleys and plateaux. The majority of the swarms will remain immature because of low temperatures. Nevertheless, some swarms could mature and eventually lay eggs in areas where temperatures are warmer and rainfall has occurred.

Libyan Arab Jamahiriya

• SITUATION

During the first week of December, several large and dense swarms appeared along the Mediterranean coast between Tripoli and Sirte (3110N/1639E). Throughout the month, additional immature swarms at densities of up to 200 adults/m² were reported in the southwest near Ghat (2459N/1011E). On the 10th, a mature swarm was seen copulating near Ghat. First and second instar hoppers mixed with mature adults were still present in the centre of the country near Jebel Al Haruj Al Aswad. In the southeast, groups of immature adults persisted throughout the month near Jebel Uweinat on the border with Egypt and Sudan in W. Gazal (2144N/2430E) and north of Kufra at

Ain Ajdid (2422N/2338E). Aerial and ground control operations treated 14,133 ha on 1-29 December.

- **Forecast**

Low to moderate numbers of swarms are likely to persist and remain immature in the west between Ghat and Nalut. If temperatures are warm enough, some adults may mature and lay eggs. This may have already occurred on a limited scale near Ghat. If so, hatching and band formation will occur from January onwards. Small groups of adults may persist near Kufra and Jebel Oweinat and slowly mature.

Tunisia

- **SITUATION**

During the first week of December, the situation was reported as calm. Thereafter, no reports were received.

- **FORECAST**

Low to moderate numbers of immature gregarious adults are likely to be present in parts of the centre and south.

CENTRAL REGION

Sudan

- **SITUATION**

During December, isolated maturing solitary adults were present at 11 places in the Tokar Delta at densities up to 200/ha. On the northern Red Sea coast, gregarious immature and mature adults at densities of 250/ha were seen west of the Red Sea Hills and W. Diib in W. Fotakwan (2128N/3532E) and isolated mature solitary adults were present in W. Artibat (2152N/3451E). On the 30-31st, two swarms were seen laying eggs in the Red Sea Hills south of Sufiya in the Adrim area (2139N/3608E) on 560 ha and at Shendeit (2143N/3607E) on 200 ha. Solitary mature adults were seen nearby. No locusts were seen in the Northern State.

- **FORECAST**

Hatching will occur by the end of January in the northern Red Sea Hills and adjacent areas in Wadi Diib as far south as Tomala that will give rise to hopper bands in February. Laying may also occur on the northern coastal plains between Mohammed Qol and the Egyptian border. Low numbers of locusts are expected to persist in the Tokar Delta where small scale breeding is likely.

Eritrea

- **SITUATION**

No reports received.

- **FORECAST**

Isolated adults may appear on the northern coastal plains of the Red Sea and breed on a small scale if rainfall occurs.

Somalia

- **SITUATION**

Small scale breeding occurred in December on the escarpment in the northwest where isolated third instar hoppers were reported on the 25th at Laguxidh (1025N/4328E). Isolated mature adults were seen on the coast near Bulhar (1023N/4425E) on the 27th.

- **FORECAST**

Although small scale breeding may continue in places where conditions are favourable along the northwest escarpment and on the coast, locust numbers are expected to remain below threatening levels.

Ethiopia

- **SITUATION**

No surveys were undertaken and no locusts were reported during December.

- **FORECAST**

No significant developments are likely.

Djibouti

- **SITUATION**

No locusts were reported during December.

- **FORECAST**

No significant developments are likely.

Egypt

- **SITUATION**

During the first half of December, there were numerous reports of immature groups and swarms in the north between Fayoum (2918N/3050E) and Wadi Natrun (3025N/3013E), further south along the Nile River between Sohag (2633N/3142E) and Minya (2806N/3045E), in the Western Desert near Bahariya (2821N/2851E), Farafra (2710N/2818E), Dakhla (2530N/2900E) oases and near Baris (2448N/3035E) and Sh. Oweinat (2219N/2845E), and in a few places in the interior of the southern Sinai Peninsula as well as on the coast near Sharm Esh Sheikh (2752N/3413E) and Nuweiba (2902N/3440E). Similar infestations were also seen on the Red Sea coast and in the adjacent hills between Marsa Alam (2504N/3454E) and Shalatyn (2308N/3535E). Some of these had become mature.

During the second half of the month, mainly mature adults at densities up to 3/m² were treated in the Red Sea Hills west of Marsa Alam. At the end of the month, immature adults at densities of 15-20/m² were



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treated in several places in the central Sinai near Abu Zenima (2903N/3306E) and groups of adults were seen copulating on the southern Red Sea coast near Berenice (2359N/3524E). Control operations treated 47,675 ha during December.

- **Forecast**

Breeding is expected to take place in the southeast along the Red Sea coast between Marsa Alam and the Sudanese border as well as in adjacent areas. Consequently, hatching and band formation will occur from about mid January onwards. Moderate numbers of locusts could persist in some oases in the Western Desert and eventually breed.

Saudi Arabia

- **SITUATION**

In early December, small groups of immature adults were present on trees in W. Terim (2750N/3519E) and in nearby areas on the northern coast of the Red Sea near Duba. At mid-month, scattered adults were present between Tabuk (2823N/3635E) and Medinah (2430N/3935E). No locusts were reported from other regions. Control operations treated 20 ha in early December.

- **FORECAST**

Low numbers of locusts are likely to have dispersed along the coastal plains between Duba and Jeddah. If good rains fall, adults will mature and lay eggs that will hatch and could cause small hopper groups or perhaps a few bands to form.

Yemen

- **SITUATION**

During November, a few scattered solitary immature and mature adults were present on the northern Red Sea coast between Al Zuhrah (1541N/4300E) and Midi (1619N/4248E). Isolated hoppers were seen to the east of Midi.

During December, scattered adults persisted near Midi and low numbers of solitary adults were seen near Hodeidah (1450N/4258E) including a few copulating adults at mid-month. No locusts were seen on the coastal plains near Aden.

- **FORECAST**

Scattered adults are likely to persist on the Red Sea coastal plains and small scale breeding will occur on a limited basis in areas of recent rainfall. Consequently,

locust numbers are expected to increase but remain below threatening levels.

Oman

- **SITUATION**

No locusts were seen during surveys carried out in the north during December.

- **FORECAST**

No significant developments are likely.

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

- **FORECAST**

No significant developments are likely.

EASTERN REGION

Iran

- **SITUATION**

No locusts were seen in the south on 11-12 December.

- **FORECAST**

No significant developments are likely.

Pakistan

- **SITUATION**

No locusts were reported during the second half of November and in December.

- **FORECAST**

No significant developments are likely.

India

- **SITUATION**

No locusts were seen during the second half of November and during December.

- **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.

During emergencies, RAMSES data should be

transmitted twice/week and situation summaries should be sent every ten days.

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

Desert Locust booklet. FAO has produced a booklet for the general public and donor community entitled *Hunger in their wake: Inside the battle against the Desert Locust*, available for download at: www.fao.org/news/global/locusts/pubs1.htm

Publications on the Internet. New FAO publications and meeting reports are available for downloading at www.fao.org/news/global/locusts/publist.htm:

- Guidelines on minimum requirements for ground-based locust and grasshopper sprayers (English)
- 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

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/donor/donor.htm.

2005 events. The following meetings are tentatively scheduled:

- **SW Asia Commission.** 24th session, Delhi (India), 10-14 January
- **International Scientific Locust Seminar.** Dakar (Senegal), 11-13 January
- **EMPRES/WR.** 3rd Liaison Officers meeting, Dakar (Senegal), 7-11 February
- **Contingency Planning.** 1st workshop sponsored by World Bank, Bamako (Mali), 7-11 March

- **EMPRES/CR.** 6th Consultative Committee, Cairo (Egypt), 14-16 March
- **Train-the-Trainers workshop.** Niamey (Niger), 14 March – 8 April
- **Contingency Planning.** 2nd workshop sponsored by World Bank, Niamey (Niger), 25-29 April
- **CLCPRO.** 3rd session, Tripoli (Libya), 5-9 June
- **FAO Council.** 128th session, Rome, 20-25 June
- **CRC.** 27th session of the Executive Committee, Khartoum (Sudan), 24-28 July
- **EMPRES/CR.** 13th Liaison Officers meeting, Sana'a (Yemen), 12-16 November
- **DLCC.** 38th Session, Rome, 12-16 December

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>.



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



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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

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.

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.

RECESSION

- period without widespread and heavy infestations by swarms.

REMISSION

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

REGIONS

WESTERN

- locust-affected countries in West and North-West Africa: Algeria, Chad, Libya, Mali, Mauritania, Morocco, 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

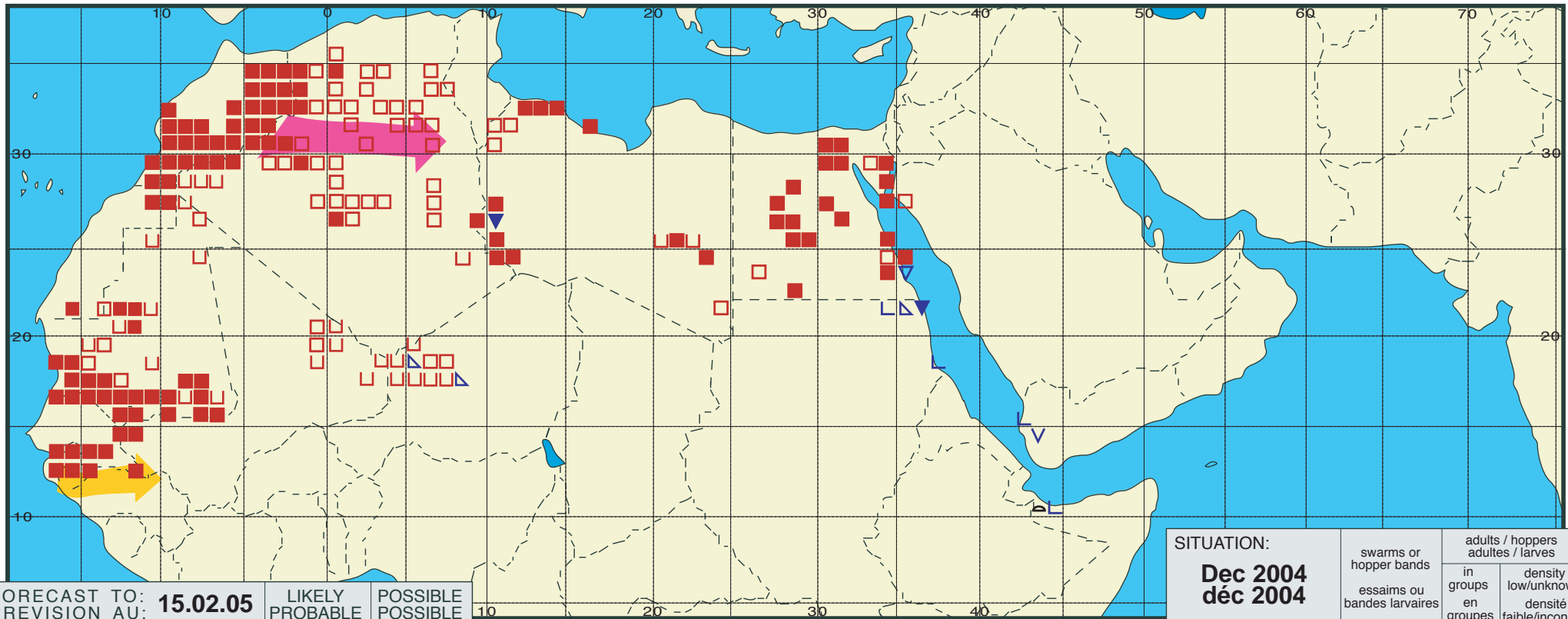
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



Desert Locust Summary

Criquet pèlerin - Situation résumée

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| FORECAST TO: PREVISION AU: 15.02.05 | 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: Dec 2004 déc 2004 | 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) | | | |