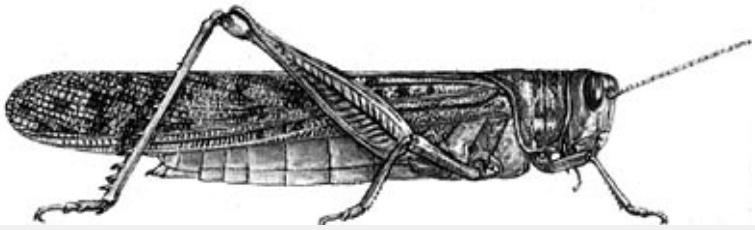

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations **No. 319**

(4 May 2005)

General Situation during April 2005 Forecast until mid-June 2005

During April, only very limited breeding occurred in Northwest Africa, mainly in northeast Algeria and to a lesser extent in northeast Morocco. Low numbers of adults were present in northern Mali and probably in northern Niger. At least one small immature swarm moved from Guinea along the Southern Circuit to southwest Mali and Burkina Faso. Although locust infestations declined in Egypt and Sudan, a few swarms crossed the Red Sea to Saudi Arabia where they laid eggs on the coast that hatched and several hopper bands formed during the second half of April. In the Eastern Region, isolated breeding occurred in southeast Iran but few locusts were present in adjacent areas of western Pakistan. Although swarms are not expected to form in Northwest Africa nor invade the Sahel this year, it is essential that intense survey operations be maintained in all affected countries and control be undertaken whenever necessary in the coming months.

Western Region. During April, small-scale breeding was in progress in parts of the spring breeding areas in Northwest Africa where small groups of hoppers formed in the northeastern Sahara in **Algeria** and hatching commenced at the end of the month in one area in northeast **Morocco**. Control operations are underway in Algeria including a bio-pesticide trial. Despite intensive survey efforts in the region, no other infestations were reported. Consequently, very few if any hopper bands or swarms are likely to form during the spring. This suggests that a swarm invasion of the Sahel is unlikely to occur this year and, at most, only low numbers of adults and perhaps a few small groups could arrive from mid June onwards. Presently in the Sahel, scattered adults are present in northern **Mali** and probably in northern **Niger**. A few small immature swarms that persisted in **Guinea** during the past few months moved through the extreme north of **Cote d'Ivoire** and into southwest Mali and central **Burkina Faso**. Although a few more swarms could appear during May, they are not expected to mature and lay eggs during the forecast period nor pose a significant threat to the region.

Central Region. Locust infestations declined along both sides of the border in northeast **Sudan** and southeast **Egypt** during April where control operations were undertaken in March. Nevertheless, scattered adults appeared along the Nile in northern Sudan and several small swarms arrived on the Red Sea coastal plains north of Jeddah, **Saudi Arabia** where they laid eggs. By mid-month, hatching and band formation occurred in Saudi Arabia and control operations commenced immediately, treating nearly 2,000 ha. several swarms formed and were seen moving towards the south. Although good rains fell during the second half of April in many parts of the region, no other locusts were seen except for several unconfirmed reports in northern **Somalia**.

Eastern Region. Isolated breeding occurred in the spring breeding areas along the coast in southeast **Iran**. No other locusts were seen in Iran or **Pakistan** during the annual Iran/Pakistan joint-border survey in April.

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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DLIS: www.fao.org/news/global/locusts/locuhome.htm

No. 319

DESERT LOCUST BULLETIN

Weather & Ecological Conditions in April 2005

General dry conditions prevailed during April in the Western Region. Widespread showers fell during the second half of April over Egypt and northern Somalia, and for the second consecutive month over parts of the Arabian Peninsula. Vegetation was drying out in the spring breeding areas in Baluchistan because of poor rainfall.

In the **Western Region**, the Inter-Tropical Convergence Zone (ITCZ) continued its seasonal progression towards the north in April, oscillating between 10N and 15N and occasionally reaching as far north as 16N over eastern Mali and western Niger. Consequently, dry and hot conditions prevailed in the Sahel in West Africa. Green vegetation and favourable breeding conditions were limited to a few localized areas in the Adrar des Iforas, Mali and in the Air Mountains, Niger. In Northwest Africa, temperatures continued to increase in the spring breeding areas along the southern side of the Atlas Mountains and little rain was reported except at mid-month in eastern Algeria outside of current breeding areas and in western Libya. In Algeria, vegetation was green in the northern Sahara and, to a lesser extent, in localized areas of the central Sahara, mainly the Tademait Plateau and the Ahnet and Mouydir regions north of Tamanrasset. In Morocco, ecological conditions were favourable in some of the wadis and low-lying areas on the High Atlas plateau and in the northeast near Oujda.

In the **Central Region**, good rains fell in several areas during the second half of April. In Egypt, light to moderate rain fell in the Western Desert and along the shores of Lake Nasser. Heavier showers occurred along the southern Red Sea coast between Marsa Alam and Shalatyn. Light rain fell along the coast in Sudan near Port Sudan and in Eritrea near Massawa. Widespread showers occurred over the southern portion of the Arabian Peninsula from the Red Sea coast in Yemen to interior areas between Marib and the Hadhramaut, extending north across the Empty Quarter to central Saudi Arabia and south to the Gulf of Aden. Light to moderate rain also fell over Djibouti and northern Somalia from Hargeisa and Berbera to Burao and Erigavo. Flooding was reported in both Yemen and northern Somalia. In the summer breeding areas in Sudan, light rain fell in Northern Kordofan near El Obeid and between Khartoum and Kassala. At the end of the month, good rains fell along the central Red Sea coast in Saudi Arabia. As a result of these rains, ecological conditions are likely to improve in these areas.

In the **Eastern Region**, vegetation in the spring breeding areas in Baluchistan of Iran and Pakistan was drying out because of poor rainfall during April. Moderate rains fell at the end of the month in parts of Rajasthan, India where Jaisalmer reported 42 mm on the 30th.

Area Treated

Only about 3,000 ha were treated in April compared to 742,000 ha in April 2004, bringing the total area treated since the beginning of the upsurge (October 2003) to 12.8 million ha.

Algeria	547 ha (4-30 April)
Egypt	513 ha (1-24 April)
Saudi Arabia	1,950 ha (4-18 April)

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**

No locusts were seen during surveys carried out in the northwest, centre and south during April.

• **FORECAST**

Low numbers of adults are expected to start to appear in parts of the centre and south at the end of the forecast period. There is a very low risk that a few small adult groups could appear from Northwest Africa after mid-June.

Senegal

• **SITUATION**

No locusts were reported during April.

• **FORECAST**

No significant developments are likely.

Mali

• **Situation**

In late March, low numbers of solitarious, transiens and gregarious immature adults were seen in a few places in Timetrine and the Adrar des Iforas.

During April, an immature swarm was seen moving in the southwest near Sikasso (1118N/0538W) early in the month. This swarm probably originated from the central highlands in Guinea where they have been present during the past few months.

• **Forecast**

Low numbers of adults are likely to be present and maturing in parts of the Adrar des Iforas, the Tilemsi Valley and in the Timetrine. Small-scale breeding could occur if rains fall. A few more small immature swarms from Guinea could appear in the southwest during May and move towards the northeast of the country as the ITCZ moves northward. There is a very low risk that a few small adult groups could appear in the north from Northwest Africa after mid-June.

Niger

• **Situation**

Although no reports were received in April, scattered immature adults and perhaps a few small groups were thought to be present in the Air Mountains.

• **Forecast**

Low numbers of adults and a few small immature groups are almost certainly present and maturing in parts of the Air Mountains. Small-scale breeding could occur if rains fall. There is a very low risk that a few small adult groups could appear in Tamesna and Air from Northwest Africa after mid-June. A limited number of Southern Circuit groups and perhaps a small swarm could also appear in the west from adjacent areas of Burkina Faso and Mali.

Chad

• **Situation**

No locusts were reported between 15 March and 15 April.

• **Forecast**

No significant developments are likely.

Guinea

• **Situation**

Although no reports were received, a limited number of small immature swarms were likely present and persisting in the central highlands during April.

• **Forecast**

The number of immature swarms that are thought to be present in the central highlands will decline as the swarms move along the Southern Circuit to Mali. Consequently, no significant developments are likely.

Burkina Faso

• **Situation**

On 14 April, a small immature swarm was seen in the southwest at Orodara (1059N/0455W), which is adjacent to the Sikasso region in Mali. On the 20th, an immature swarm estimated to be about 5,000 ha in size was seen 35 km south of Ouagadougou. On the 22nd, the swarm moved towards the northeast and was treated by air and ground teams. During the month, there were several reports of swarms moving from the southwest towards the northeast. Some of the reports may be of the same swarm seen several times. Consequently only a limited number of swarms are likely to be present, having originated from the central highlands in Guinea and moved along the Southern Circuit through southwest Mali and the extreme north of Cote d'Ivoire.

• **Forecast**

There is a very low risk that a few more Southern Circuit immature swarms could appear in the west and continue to move further north with the ITCZ in May. By June, this risk will be substantially reduced.

Cote d'Ivoire

• **Situation**

During the last week of April, there were two unconfirmed reports of immature swarms moving in the extreme north of the country near Tengrela (1029N/0624W), adjacent to the Sikasso region in Mali.

• **Forecast**

There is a low risk that a few small swarms might pass through the extreme north during May as they move along the Southern Circuit from Guinea to Mali or Burkina Faso. No significant developments are likely.

Benin, Cameroon, Cape Verde, Gambia, Ghana, Guinea Bissau, Liberia, Nigeria and Sierra Leone, Togo

• **Forecast**

No significant developments are likely.

Algeria

• **Situation**

In late March, hatching occurred in the northeast Sahara between El Oued (3323N/0649E) and Biskra (3448N/0549E). During April, hatching continued in these areas, giving rise to small patches of early

instar hopper groups. At mid-month, breeding had extended to adjacent areas of Khenchela province where hatching was reported in the south. By the end of the month, breeding was also reported southeast of Laghouat (3349N/0243E) and hoppers near El Oued had reached the fourth instar. No locusts were seen during surveys carried out in other areas of the country. Ground teams treated 547 ha during April. Metarhizium trials were in progress on a few of the infestations in the northeast.

• **Forecast**

Small-scale breeding will continue in the northeastern Sahara and hoppers will form small groups and perhaps a few small bands. Hoppers that are not detected or controlled will fledge from late May onwards and form at most a few small groups and perhaps a swarmlet in early June.

Morocco

• **Situation**

During April, egg pods were detected in the northeast near the Algerian border and south of Oujda in a limited area between Touissit (3429N/0146W) and Guenfouda (3428N/0159W) where laying occurred in March. Small-scale hatching and low numbers of first instar hoppers were reported in this area from 25 April onwards.

• **Forecast**

Small-scale breeding will continue on a limited basis in the northeast near Oujda where hoppers are expected to fledge in late May and, if not detected or controlled, form at most a few small groups in early June.

Libyan Arab Jamahiriya

• **Situation**

No locusts were seen during surveys carried out in April in the northwest near Ghadames, Nalut and in the Al-Hamada Al-Hamra.

• **Forecast**

Although scattered adults may be present and breeding on a limited basis in a few places in the northeast where rain fell in March, locust numbers are expected to be too low to give rise to hopper bands or swarms during the forecast period.

Tunisia

• **Situation**

No locusts were reported and no reports were received during April.

• **Forecast**

Small-scale breeding may be in progress in a few places in the south, mainly between the Algerian border and Tozeur. If so, hoppers that are not detected or controlled could fledge from late May onwards and form at most a few small groups in early June.

CENTRAL REGION

Sudan

• **Situation**

During the first half of April, infestations declined in the northeast near the Red Sea coast and interior areas along Wadi Diib and, by mid-month, only isolated immature adults were seen at four locations. Isolated immature gregarious adults appeared in the Nile River Valley near Abu Hamed (1932N/3320E) and Atbara (1742N/3400E) during the second week of the month. These adults are most likely from Wadi Diib. No locusts were seen during surveys in the Tokar Delta.

• **Forecast**

Scattered adults are likely to persist in the north near Abu Hamed and could appear in other areas between Shendi and Dongola. Low numbers of adults are also likely to appear in the summer breeding areas in Northern Kordofan and Northern Darfur where they will eventually mature and lay eggs with the onset of the seasonal rains. If swarms form on the Red Sea coast of Saudi Arabia in June, there is a risk that these could cross the Red Sea and appear in the summer breeding areas between Kassala and Darfur.

Eritrea

• **Situation**

No locusts were reported during April.

• **Forecast**

No significant developments are likely.

Somalia

• **Situation**

During the first week of April, isolated maturing solitarious adults were seen northeast Berbera (1028N/4502E) and mature adults were present west of Berbera near Bulhar (1023N/4425E). There were no signs or evidence of swarms as claimed by the locals. At mid-month, there were unconfirmed reports of locusts on the coast between Las Koreh (1110N/4812E) and Bosaso (1118N/4910E), and in the nearby Golis Mountains.

• **Forecast**

Scattered adults are likely to be present and may persist on the coastal plains near Berbera. Scattered

adults may also appear and could eventually breed in adjacent areas of recent rainfall on the escarpment and plateau. The situation requires careful and regular monitoring.

Ethiopia

• **Situation**

No locusts were reported during April.

• **Forecast**

No significant developments are likely.

Djibouti

• **Situation**

No locusts were reported during April.

• **Forecast**

No significant developments are likely.

Egypt

• **Situation**

During April, low numbers of late instar hoppers, fledglings, immature and mature adults persisted along the Red Sea coastal plains between Marsa Alam (2504N/3454E) and the Sudanese border as well as further inland in Wadi Diib and the Red Sea Hills. The infestations consisted of a mixture of solitarious, transiens and gregarious locusts. In a few places, densities were as high as 600 adults/bush. By the end of the month, infestations had declined along the coast but were still present in a few places further inland near Allaqi (2256N/3300E) and along Lake Nasser near Garf Husein (2317N/3252E). Ground control operations treated 513 ha on 1-24 April.

• **Forecast**

Low numbers of adults and perhaps a few small groups are likely to persist near Lake Nasser where they could eventually breed on a small scale in areas of recent rainfall.

Saudi Arabia

• **Situation**

During the first week of April, several mature adult groups at densities of 50-150 locusts/tree were seen copulating on the Red Sea coastal plains north of Jeddah near Masturah (2309N/3851E) on the 4th. During the following days in the same area, a mature swarm at a density of 10-50 adults/m^2 laid eggs on the 5th and another swarm at a density of 2,000-4,000 adults/m^2 was seen laying eggs on the 7th. Scattered infestations of gregarious adults and groups were reported in nearby areas. These locusts probably originated from infestations that were present on the Red Sea coasts of Egypt and Sudan.

Hatching started on 15 April and hatchlings were forming small bands at densities of 50 hoppers/m^2. Scattered hoppers were also seen nearby. Aerial and ground surveys estimated that infestations were present within a relatively small area of some 140 km^2. Elsewhere, no locusts were seen in the spring breeding areas in the central interior. Control operations treated 1,950 ha on 4-18 April.

• **Forecast**

Low to moderate numbers of small hopper groups and bands are likely to form on the northern Red Sea coastal plains between Jeddah and Yenbo. Additional hatching may occur during the first half of May.
Any hoppers that are not detected or controlled are expected to fledge from mid-May onwards and could form small immature adult groups and perhaps a few small swarms. If no further rainfall occurs, the locusts are likely to move across the Red Sea towards Sudan.

Yemen

• **Situation**

No locusts were reported during April.

• **Forecast**

Low numbers of adults may be present along the Red Sea coastal plains where they could breed in areas of recent rainfall. Scattered adults could appear in the interior between Marib and Hadhramaut and eventually breed in areas that received good rains during April.

Oman

• **Situation**

No reports were received during April.

• **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**

During the annual joint Iran/Pakistan locust survey in the second half of April, isolated first to third instar hoppers and maturing adults were seen at five places near Chabahar (2517N/6036E), indicating that small-scale breeding occurred during the spring this year.

• **Forecast**

Locust numbers will decline in the southeast as vegetation dries out.

Pakistan

• **Situation**

Despite unusually good ecological conditions, no locusts were seen in the spring breeding areas in Baluchistan during the second half of March and first half of April.

• **Forecast**

Any locusts that may be present in the spring breeding areas in Baluchistan will decline as conditions dry out. Consequently, a few scattered adults may start to appear in the summer breeding areas in Tharparkar and Cholistan by the end of the forecast period.

India

• **Situation**

No locusts were seen during the second half of March and the first three weeks of April.

• **Forecast**

A few scattered adults may start to appear in the summer breeding areas in Rajasthan by the end of the forecast period.

Afghanistan

• **Situation**

No reports received.

• **Forecast**

No significant developments are likely.

Announcements

Locust reporting. During locust emergencies, RAMSES output files with a brief interpretation should be sent twice/week and affected countries are encouraged to prepare decadal bulletins summarizing the situation. During recession periods, countries should report at least once/month. All information should be sent by e-mail to the FAO/ECLO Desert Locust Information Service (eclo@fao.org). Information received by the end of the month will be included in the FAO Desert Locust 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.

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.

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/pubslist.htm:

- 24th session of the FAO Commission for Controlling the Desert Locust in South-West Asia (English)

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.

2005-2006 events. The following meetings are tentatively scheduled:

- **FAO Representatives.** Locust briefing for Western Region, Dakar (Senegal), 18-19 May
- **CLCPRO.** 3rd session, Tripoli (Libya), 12-16 June
- **CRC.** 27th session of the Executive Committee, Khartoum (Sudan), 24-28 July
- **EMPRES/CR.** 6th Consultative Committee, Cairo (Egypt), 13-15 November
- **DLCC.** 39th Session, Rome, 5-9 December
- **EMPRES/CR.** 13th Liaison Officers meeting, Yemen, January 2006
- **EMPRES/WR.** 4th Liaison Officers meeting, Algiers, January/February 2006

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.

Nick Jago. It is with deep regret that we announce the death of Nick Jago on 26 April. Mr. Jago devoted his life to the taxonomy, ecology and management of locusts and grasshoppers, especially in the Sahel. We would like to express our sincere condolences to his family and his government.

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 km^2 • band: 1 - 25 m^2

SMALL

- swarm: 1 - 10 km^2 • band: 25 - 2,500 m^2

MEDIUM

- swarm: 10 - 100 km^2 • band: 2,500 m^2 - 10 ha

LARGE

- swarm: 100 - 500 km^2 • band: 10 - 50 ha

VERY LARGE

- swarm: 500+ km^2 • 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

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, Guidea Bissau and Guinea Conakry.

CENTRAL

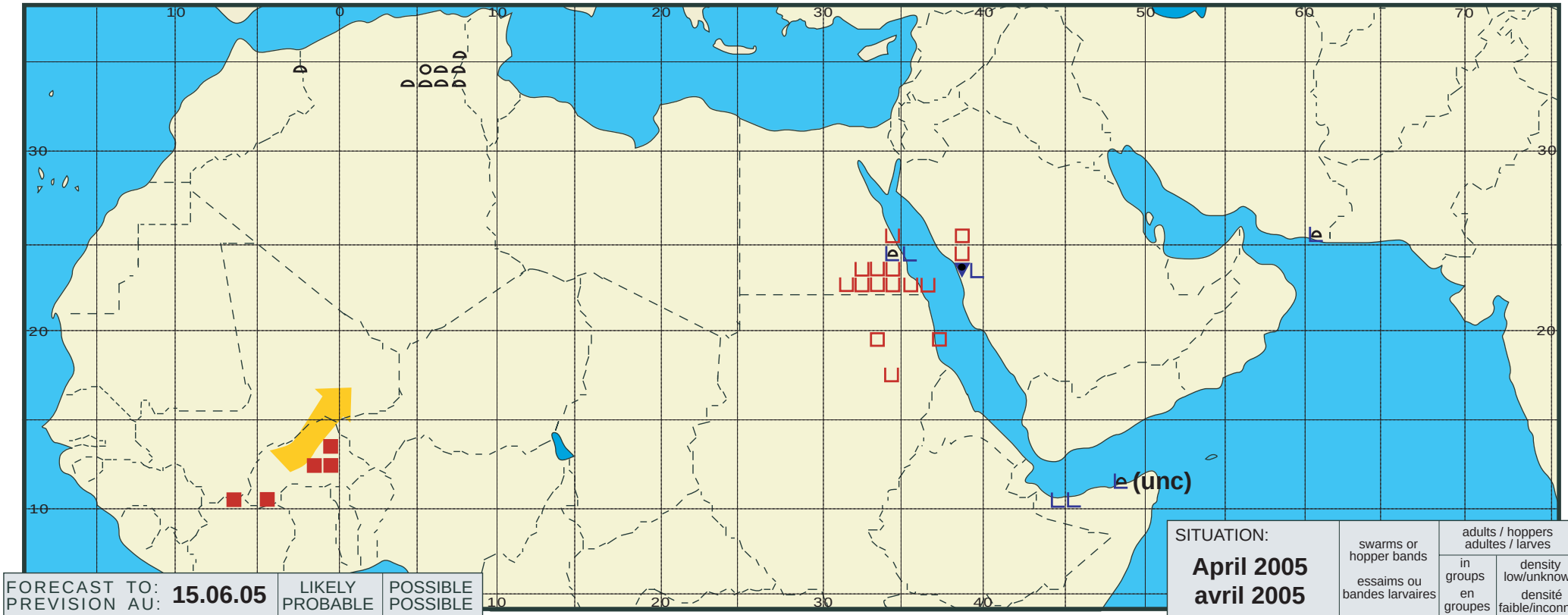
- locust-affected countries along the Red Sea: Djibouti, Egypt, Eritrea, Ethiopia, Oman, Saudi Arabia, Somalia, Sudan, Yemen; during plagues only: Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Qatar, Syria, Tanzania, Turkey, UAE and Uganda.

EASTERN

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

Desert Locust Summary
Criquet pèlerin - Situation résumée

319



FORECAST TO: PREVISION AU: **15.06.05**	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favourables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarm(s) essaim(s) limité(s)		
non swarming adults adultes non essaimant		

SITUATION: **April 2005 avril 2005**	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)			