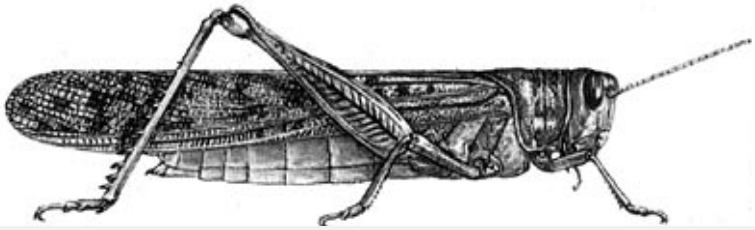

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations **No. 290**

(4 Dec 2002)

General Situation during November 2002 Forecast until mid-January 2003

The Desert Locust situation remained calm during November. Although small-scale breeding occurred in western Mauritania, northern Mali, Niger and southern Yemen, locust numbers remained below threatening levels. Isolated adults were present in southern Algeria. In the winter breeding areas along the Red Sea, unusually heavy rainfall occurred on the coast of Sudan where scattered adults were already present. During the forecast period, breeding is likely to occur along the Red Sea coasts and low numbers of adults may persist in Mauritania, Mali, Niger and Algeria.

Western Region. Small-scale breeding in western **Mauritania**, northern **Mali** and **Niger** led to a slight increase in locust numbers during November but control operations were only required in Niger where 435 ha were treated. As no rain fell in these areas in the past month, further breeding is unlikely unless additional rainfall occurs in the coming weeks. Consequently, only low numbers of adults will persist in these areas. Some adults appeared in southern **Algeria** that are thought to have originated from the breeding in northern Mali. No locusts were reported elsewhere in the region.

Central Region. As a result of control operations carried out in October, only scattered adults remained on the Gulf of Aden coastal plains in **Yemen**. Nevertheless, localized breeding continued during November giving rise to small patches of hoppers. Low numbers of adults were present on the Red Sea coastal plains in **Sudan**. Small-scale breeding is expected to occur over a widespread area due to unusually heavy rains that fell several times during November on the coast and in adjacent subcoastal areas. Limited breeding is also likely to occur along parts of the Red Sea coast in **Saudi Arabia** where good rains fell during November and on the coastal plains of Yemen and **Eritrea**. No locusts were reported elsewhere in the region.

Eastern Region. Although light rains fell in Baluchistan, **Pakistan** and along the Indo-Pakistan border, breeding conditions remained unfavourable and no locusts were reported in the region. No significant developments are likely during the forecast period.

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. 290

DESERT LOCUST BULLETIN

Weather & Ecological Conditions in November 2002

Good rains fell along the Red Sea coastal plains of Sudan and Saudi Arabia where conditions should become favourable for breeding. Good rains also fell along the southern side of the Atlas Mountains in Morocco and Algeria. Green vegetation persisted in a few places in northwest Mauritania, northern Mali and Niger.

In the **Western Region**, light to moderate rains fell in northwestern Morocco and northern Algeria during November. Most of these rains were associated with several depressions that formed over the Atlantic and moved eastward across the Mediterranean from mid month onwards. In Morocco, rainfall occurred along the Atlantic coast from Tan-Tan to Agadir and further inland from the southern foothills of the Atlas Mountains to the Oued Draa Valley. Some of these showers extended to adjacent areas of northwestern Algeria. As the depressions moved further east, light showers fell at times in parts of eastern Algeria, southern Tunisia and northwestern Libya. Small patches of green vegetation were reported near the Hoggar Mountains and Tamanrasset, Algeria. Although no significant rainfall was reported or is thought to have occurred in the Sahel between Mauritania and Chad, green vegetation was reported in a few places. In Mauritania, vegetation was green between Magta Lahjar and Tidjikja, near Akjoujt and in the Aguilal Fai. In northern Mali, vegetation was drying out in most places except for a few small spots in the Tilemsi Valley and Timetrine. In Niger, vegetation was green in the Talak region near Arlit.

In the **Central Region**, good rains fell in some coastal and subcoastal areas on both sides of the Red Sea in Sudan and Saudi Arabia. In Sudan, unusually heavy rains were reported several times on the coastal plains between Tokar Delta and Port Sudan as well as on the western side of the Red Sea Hills along Wadi Oko/Diib from Tomala nearly to the Egyptian border. Most of these rains occurred during the second half of November and were associated with northern surges of the Red Sea Convergence Zone (RSCZ) that are linked to depression further north in the Mediterranean. In Saudi Arabia, good rains associated with a strong depression over the eastern Mediterranean fell at the end of the month on the central and northern coastal plains between Jeddah and Yenbo. Consequently, breeding conditions should improve in these areas in the coming weeks. Elsewhere, no significant rainfall was reported during November. Nevertheless, vegetation was becoming green in a few places along the Red Sea coastal plains near Halaib, Egypt and on the Eritrean coastal plains between Massawa and the Sudanese border. In Yemen, on the other hand, vegetation was drying up in a few places along the central plains of the Red Sea coast as well as on the Gulf of Aden coastal plains. In northern Somalia, vegetation is dry on the northwestern coastal plains but green in some places further inland on the escarpment. In Oman, light rains fell in early November on the northern Batinah coast extending to the Musandam Peninsula and eastern UAE but conditions remained dry.

In the **Eastern Region**, the rains that fell in northern Oman were part of a larger system that extended to Baluchistan, Pakistan where widespread light rains were reported on 7-8 November on the coast between Jiwani and Pasni, and further inland near Panjgur as well as south of the Afghanistan border between Nokkundi and Nushki. Unusually heavy showers were reported on the 25th at Dalbandin. In India, light rains fell in Rajasthan at Barmer, Jaisalmer, Jodhpur and Bikaner during the second week. Some of these extended into the Cholistan and Tharparkar Deserts in Pakistan. Despite these showers, vegetation conditions remained dry in the Desert Locust breeding areas in both countries.

Area Treated

Niger 435 ha (2-5 November)

Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• **SITUATION**

During November, solitarious immature adults from earlier breeding were scattered near Aioun El Atrous (1702N/0941W). Small-scale breeding that started in September and October continued in the west and northwest between Moudjeria (1751N/1228W) and

Akjoujt (1945N/1421W). Although most of the hoppers were of all instars, some had reached fifth instar and had fledged into new adults. The largest infestation was reported near Moudjeria where third to fifth instar hoppers at densities of 5,000 per ha were seen on 2.5 ha. Some of these were transiens.

• **Forecast**

If additional rainfall occurs, small-scale breeding will continue between Moudjeria and Akjoujt, and perhaps extend further north in Inchiri. Otherwise, breeding will decline in these areas and some grouping may occur as vegetation starts to dry out. Locust maturation may be delayed as temperatures decline during the forecast period.

Mali

• **Situation**

During November, solitarious hoppers and immature and mature adults mixed with some transiens were present in a few places in the Tilemsi Valley and in the Timetrine. Hopper densities were highest in the Timetrine west of Tessalit (2011N0102E) where there were up to 10 hoppers per sq. metre but no bands were reported. Adults were generally scattered in very low numbers except for one location, Bolrech (2047N/0001E), where an estimated 10,000 per ha were seen.

• **Forecast**

Unless more rain falls, breeding will come to an end in northern Mali and only low numbers of solitarious adults are likely to persist in a few places in the Timetrine, Tilemsi Valley and the Adrar des Iforas. There is a low possibility that some adults will move northwards into adjacent areas of southern Algeria during periods of warm southerly winds associated with Mediterranean depressions.

Niger

• **Situation**

In early November, scattered immature and mature adults mixed with isolated first instar hoppers were reported on the Talak plains northeast of Arlit near Agaliouk (1846N/0732E). Ground control operations treated 435 ha, and, by the 21st, scattered adults at densities of 200 per ha and solitarious and transiens hoppers at densities of 10 per bush remained. Nearby, solitarious adults, up to 1,000 per ha, were reported as well as a few fourth instar hoppers. Elsewhere, an individual immature adult was seen on the 8th east of Agadez (1700N/0756E) in southeastern Air. A single hopper and adult were also seen in Tamesna north of In Abangharit (1754N/0559E) on the 22nd.

• **Forecast**

Locust numbers will decline in Tamesna and in western Air as vegetation dries out and breeding conditions become unfavourable. Nevertheless, low numbers may persist in a few places near Talak. No significant developments are likely.

Chad

• **Situation**

No reports received.

• **Forecast**

No significant developments are likely.

Senegal

• **Situation**

No reports received.

• **Forecast**

No significant developments are likely.

Algeria

• **Situation**

From 30 October to 2 November, isolated mature adults were seen at four places in W. Amded (2249N/0424E), W. In Chikchi (2311N/0240E) and W. Agherfenou (2318N/0230E) west of Tamanrasset. No locusts were seen during surveys carried out between Tamanrasset and In Salah as well as near Tindouf during November

• **Forecast**

Low numbers of adults are likely to persist near Tamanrasset and small-scale breeding could occur in areas where conditions are suitable.

Morocco

• **Situation**

No locusts were reported in the south and southeast during November.

• **Forecast**

No significant developments are likely.

Libyan Arab Jamahiriya

• **Situation**

No locusts were reported during October.

• **Forecast**

No significant developments are likely.

Tunisia

• **Situation**

No locusts were reported during October and November.

• **Forecast**

No significant developments are likely.

Burkina Faso, Cape Verde, Gambia, Guinea Bissau and Guinea Conakry

• **Forecast**

No significant developments are likely.

CENTRAL REGION

Sudan

• **Situation**

Isolated mature adults at densities up to 16 locusts per ha were reported at four places in Tokar Delta on 29 November. Isolated mature adults were also present at two places on the coastal plains between Tokar (1827N3741E) and Suakin (1908N/3717E). No locusts were seen elsewhere on the Red Sea coastal plains south of Port Sudan or in the northern subcoastal areas along Wadi Oko/Diib between Tomala (2002N/3551E) and the Egyptian border during the last week of November.

• **Forecast**

Small-scale breeding will occur in areas of good rainfall on the Red Sea coastal plains from Karora to Port Sudan including the Tokar Delta. Additional breeding may occur in Wadi Oko/Diib. Consequently, locust numbers will increase during the forecast period but remain below threatening levels.

Eritrea

• **Situation**

A late report indicated that no locusts were seen on the central and southern Red Sea coastal plains between Idd (1357N/4138E) and Mersa Gulbub (1633N/3908E) on 27-30 September. No locusts were seen during surveys carried out on 16-18 November on the northern coast between Massawa (1537N/3928E) and the Sudanese border at Karora (1745N/3820E).

• **Forecast**

Isolated adults may be present in some areas along the Red Sea coastal plains between Massawa and Karora. There is a low possibility of additional adults appearing from Yemen. Small-scale breeding will occur in areas of recent rainfall and lead to a gradual increase in locust numbers.

Somalia

• **Situation**

No locusts were seen during surveys carried out on the northwestern coastal plains between Berbera (1028N/4502E) and the Djibouti border as well as on the escarpment between Hargeisa (0931N/4402E) and Boroma (0956N/4313E) on 10-13 November.

• **Forecast**

A few scattered adults may appear on the coastal plains between Berbera and the Djibouti border during the forecast period. No significant developments are likely.

Ethiopia

• **Situation**

No reports received.

• **Forecast**

No significant developments are likely.

Djibouti

• **Situation**

No locusts were seen on the coastal plains between Djibouti town and the Somali border on 14 November.

• **Forecast**

A few scattered adults may appear on the coastal plains north of Obock and near Djibouti town during the forecast period. No significant developments are likely.

Egypt

• **Situation**

No locusts were reported during November along the Red Sea coast or in the Western Desert.

• **Forecast**

No significant developments are likely.

Saudi Arabia

• **Situation**

No reports received.

• **Forecast**

Scattered adults are likely to be present in areas of recent rainfall along the Red Sea coastal plains between Jeddah and Yenbo as well as further south near Jizan where small-scale breeding is expected during the forecast period.

Yemen

• **Situation**

On 30-31 October, scattered fledglings and immature solitarious adults persisted on the coastal plains of Aden near Am Rija (1302N/4434E) where previous breeding had occurred and control operations had been carried out. Nearby, first and second instar hoppers at densities of 5-10 per sq. m. mixed with immature adults were present in an area of recent breeding northwest of Lahij (1303N/4453E). No locusts were seen elsewhere along the coastal plains to the west and east of Aden.

On the central Red Sea coast, no locusts were seen during surveys between Bajil (1458N/4314E) and Bayt

Al Faqih (1430N4317E) on 18-20 November.

• **Forecast**

Locust numbers will decline on the Gulf of Aden coastal plains as vegetation becomes dry and low numbers of adults move towards the Red Sea coast where scattered adults may already be present and breeding on a small scale in those areas that are green. Breeding is expected to continue during the forecast period. Regular monitoring of the Red Sea coastal plains is recommended.

Oman

• **Situation**

No locusts were reported in the Musandam and Dakhliya regions during November.

• **Forecast**

No significant developments are likely.

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

• **Forecast**

No significant developments are likely.

EASTERN REGION

Iran

• **Situation**

No locusts were reported on the coastal plains west of Bandar Abbas on 7 November.

• **Forecast**

No significant developments are likely.

Pakistan

• **Situation**

No locusts were reported during November.

• **Forecast**

No significant developments are likely.

India

• **Situation**

No locusts were reported during the second half of October and first half of November.

• **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* with a brief interpretation of the results by e-mail to eclo@fao.org.

Desert Locust Guidelines. The revised edition in English was issued on 24 September 2001 and is now available from FAO. Please contact the Locust Group for more information.

eLocust. Details of a new system under evaluation for recording and transmitting locust survey and control data collected in the field can be found on the Internet at: www.fao.org/news/2001/010601-e.htm

Publications on the Internet. A list of publications that can be downloaded from the FAO Locust webpages is now available (www.fao.org/news/global/locusts/pubslist.htm). New additions are:

- Report of the 23rd session of the NW Africa Commission (CLCPANO) in French and Arabic
- Report of the 36th session of the DLCC recently held in Rome (English and French; Arabic upon request)
- FAO Desert Locust Guidelines, revised edition, 2001 (English)
- FAO Spray Monitoring Form (English)

Desert Locust research award. The FAO Commission for Controlling the Desert Locust in the Central Region (CRC) is pleased to announce a cash award for outstanding research on Desert Locust. For more details, please contact the CRC Office in Cairo (munir.butrous@fao.org).

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DESERT LOCUST BULLETIN

Master Trainer Course. Details and photos of a FAO training-of-trainers course on Desert Locust survey, control and training skills recently held in Oman are available at: www.fao.org/news/global/locusts/omntot/totmain.htm

2002 events. The following are scheduled:

- **EMPRES/WR.** Improved locust control application techniques regional workshop, Nouakchott (Mauritania), 15-19 December
- **SW Asia Commission.** 23rd Session, Islamabad (Pakistan), 16-20 December

2003 events. The following are provisionally scheduled:

- **EMPRES/WR.** 1st Liaison Officers meeting, Niamey (Niger), 27-31 January
- **EMPRES.** 6th Consultative Committee and Phase III Planning Workshop, Cairo (Egypt), May
- **CRC.** 24th Session of the Executive Committee, Beirut (Lebanon), April
- **CLCPANO.** 24th Session, Tripoli (Libya), 4-8 May
- **CLCPRO.** 2nd Session, Alger (Algeria), June
- **DLCC.** 37th Session, FAO Rome, 22-26 September
- **EMPRES/CR.** 11th Liaison Officers meeting, December
- **DLCC Technical Group.** FAO Rome, *to be advised*

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

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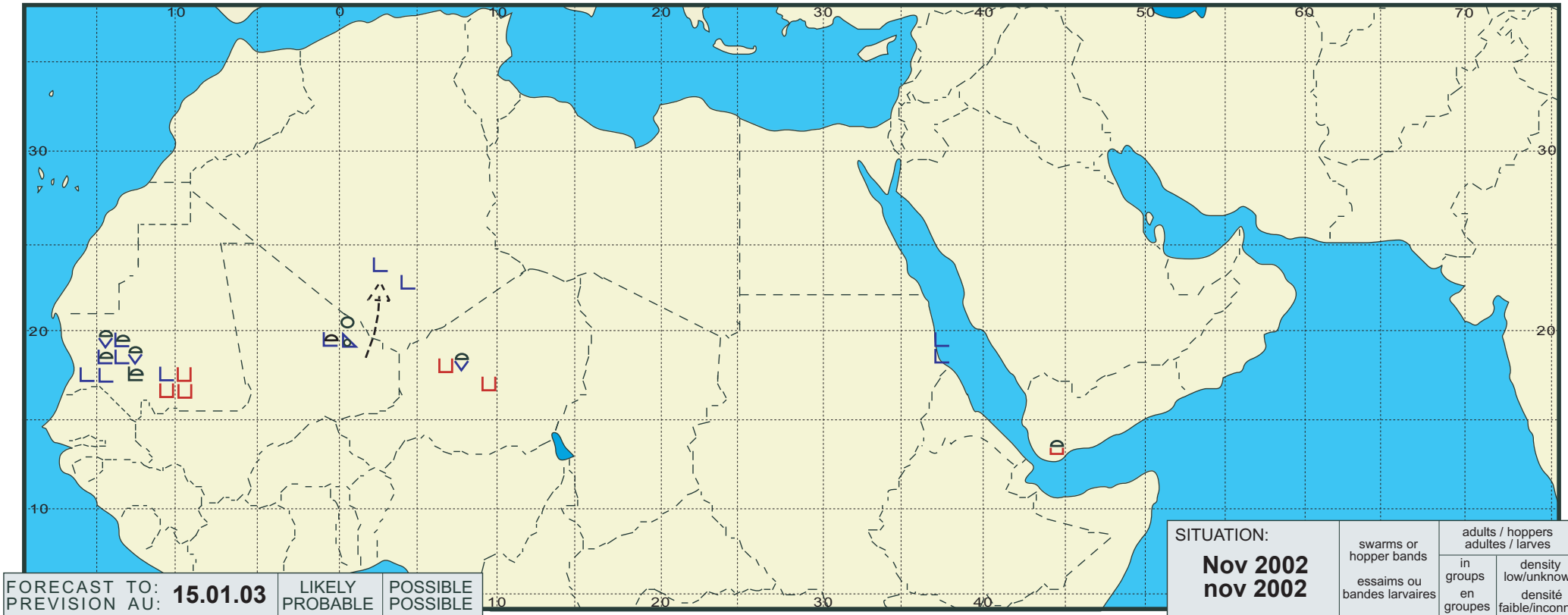

FORECAST TO: PREVISION AU: **15.01.03**	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favourables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarm(s) essaim(s) limité(s)		
non swarming adults adultes non essaimant		

SITUATION: **Nov 2002** **nov 2002**	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)			