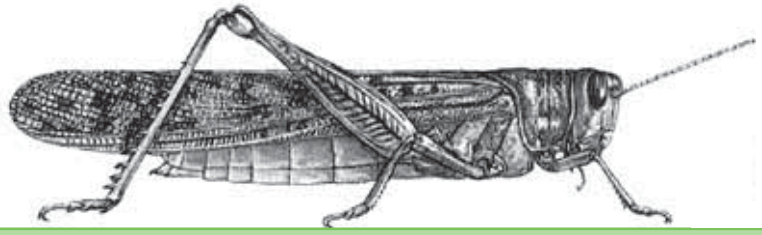


warning level: **CALM**

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations

No. 399

(3 Jan 2012)

General Situation during December 2011 Forecast until mid-February 2012

The Desert Locust situation remained calm during December because of poor rainfall. Only isolated solitarious adults were seen in a few places in the winter breeding areas along both sides of the Red Sea in Sudan, Eritrea, Saudi Arabia and Yemen. During the forecast period, small-scale breeding is likely to take place in some of these areas as well as in eastern Oman. Although this will cause locust numbers to increase slightly, they will remain below threatening levels. In West Africa, small-scale breeding is likely to continue in the Air Mountains in Niger and isolated adults may persist in northwest Mauritania. In South-West Asia, small-scale breeding may commence by mid-February in western Pakistan and southeast Iran if more rains fall. No significant developments are likely in the recession area during the forecast period.

Western Region. Mainly dry conditions prevailed during December and very little rain fell except in **Niger** where good rains fell at mid-month in the Air Mountains. Small-scale breeding was in progress there and limited breeding is likely to continue during the forecast period. In **Mauritania**, locust numbers declined in the northwest where only isolated adults persisted in a few places. In **Morocco**, no locusts were seen south of the Atlas Mountains in the Draa Valley and in the Western Sahara. In **Algeria**, no locusts were seen during surveys but vegetation was becoming green in parts of the southern Sahara. No significant developments are likely in the region during the forecast period.

Central Region. A few scattered adults were reported during December in the winter breeding areas along the Red Sea coast in **Sudan**, **Eritrea**, **Saudi Arabia**, and **Yemen**. No locusts were seen during surveys carried out in **Egypt**, northern **Somalia** and **Oman**. Light rain fell on the coast in Sudan where ecological conditions were becoming favourable. Favourable conditions were also present along parts of the Red Sea coast in Yemen and along the eastern coast in Oman. During the forecast period, small-scale breeding is likely to occur in these places as well as any other areas that receive rainfall. This will cause locust numbers to increase slightly but remain below threatening levels. No significant developments are likely in the region during the forecast period.

Eastern Region. Dry conditions prevailed throughout the region during December. Isolated solitarious adults were seen at one place on the coast in western **Pakistan**. If light to moderate showers occur during the forecast period in the spring breeding areas of western Pakistan and southeast **Iran**, then small scale breeding is likely to take place but locust numbers are expected to remain low and below threatening levels. No significant developments are likely in the region during the forecast period.

The FAO Desert Locust Bulletin is issued every month by the Desert Locust Information Service, AGP Division (Rome, Italy). It is supplemented by Alerts and Updates during periods of increased Desert Locust activity. All products are distributed by e-mail and made available on the Internet.
Telephone: +39 06 570 52420 (7 days/week, 24 hr)
Facsimile: +39 06 570 55271
E-mail: eclo@fao.org
Internet: www.fao.org/ag/locusts
Twitter: FAOLOCUST

No. 399

DESERT LOCUST BULLETIN

Weather & Ecological Conditions in December 2011

Although very little rain fell during December, ecological conditions remained favourable for limited breeding in the Air Mountains of Niger, and were becoming favourable in a few winter breeding areas along the Red Sea coast as well as in Oman from earlier rains.

In the **Western Region**, very little rain fell during December except in Niger where good rains fell during the second decade in the eastern side of the Air Mountains. This should allow ecological conditions to remain favourable for breeding during the forecast period. Elsewhere in the region, dry conditions prevailed in most areas except in parts of the central Sahara in Algeria near Adrar and in the southern Sahara southeast of the Hoggar Mountains where vegetation was becoming green. In Mauritania, vegetation remained green in a few small areas in the centre and northwest. In Mali, a few local areas remained green in central Timetrine and in southern Tamesna.

In the **Central Region**, no significant rain fell during December. Nevertheless, light showers occurred a few times during the second half of the month on the southern Red Sea coastal plains in Sudan near Tokar Delta. Consequently, ecological conditions were becoming favourable for small-scale breeding between Suakin and the Eritrean border but were dry on the northern coast. Breeding conditions were improving on the central Red Sea coast in Eritrea mainly near Shelshela and along parts of the northern Tihama in Yemen. In Oman, ecological conditions became favourable for small-scale breeding along the eastern coast as a result of good rains in October and November. Dry conditions prevailed in winter breeding areas on the Red Sea coast in southeast Egypt and along both sides of the Gulf of Aden in southern Yemen and northern Somalia.

In the **Eastern Region**, no significant rain fell during December and dry conditions prevailed in all areas.

Area Treated

No control operations were reported in December.

Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• **SITUATION**

During December, locust numbers declined in the northwest and only isolated immature and mature solitarious adults persisted in a few places between Akjoujt (1945N/1421W) and Atar (2032N/1308W), southwest of Akjoujt, and east of Aguilal Faye (1827N/1444W). No locusts were seen further north near Zouerate (2244N/1221W).

• **FORECAST**

If rainfall occurs, small-scale breeding will cause locust numbers to increase slightly in northern Trarza, Inchiri and southwest Adrar but remain below threatening levels. No significant developments are likely.

Mali

• **SITUATION**

No surveys were carried out and no locusts were reported in December.

• **FORECAST**

Isolated adults may be present and could persist in the few areas that remain green in the north, particularly in central Timetrine and southern Tamesna. No significant developments are likely.

Niger

• **SITUATION**

During December, a few isolated solitarious hoppers of all instars were seen in the central Air Mountains between Iferouane (1905N/0824E) and Timia (1809N/0846E) as a result of small-scale breeding during November and early December. Isolated immature and mature solitarious adults were also present. A few hoppers and immature adults were reported on the western side of the Air Mountains at one location between Agadez (1700N/0756E) and Arlit (1843N/0721E).

• **FORECAST**

Low numbers of adults will persist in the Air Mountains and small-scale breeding is likely to continue in areas of recent rainfall.

Chad

• **SITUATION**

No surveys were carried out and no locusts were reported in December.

• **FORECAST**

No significant developments are likely.

Senegal

• **SITUATION**

No surveys were carried out and no locusts were reported in December.

• **FORECAST**

No significant developments are likely.

Benin, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Nigeria, Sierra Leone and Togo

• **FORECAST**

No significant developments are likely.

Algeria

• **SITUATION**

During December, no locusts were seen during surveys carried out near Adrar (2753N/0017W), Tindouf (2741N/0811W), and west of Tamanrasset (2250N/0528E).

• **FORECAST**

If temperatures stay warm, local breeding may occur near Adrar and southeast of the Hoggar Mountains causing locust numbers to increase slightly but remain below threatening levels.

Morocco

• **SITUATION**

During December, no locusts were seen during surveys carried out in the Draa Valley and in the northeastern Western Sahara near Smara (2644N/1140W) and Haouza (2707N/1112W).

• **FORECAST**

Isolated adults may appear in the extreme south of the Western Sahara and breed on a small scale if rainfall occurs.

Libyan Arab Jamahiriya

• **SITUATION**

No surveys were carried out and no locusts were reported during December.

• **FORECAST**

A few solitarious adults may be present and breeding in areas of previous rainfall in the southwest along the Algerian border between Ghat and Ghadames. No significant developments are likely.

Tunisia

• **SITUATION**

No surveys were carried out and no locusts were reported in December.

• **FORECAST**

No significant developments are likely.

CENTRAL REGION

Sudan

• **SITUATION**

During December, no locusts were seen during surveys along the Red Sea coast between the borders of Egypt and Eritrea except for scattered mature solitarious adults at one place on the southern plains near Aqiq (1813N3811E) at the end of the month. No locusts were seen on the western side of the Red Sea Hills in Wadi Diib/Oko between Tomala (2002N/3551E) and the Egyptian border.

• **FORECAST**

Small-scale breeding is expected to occur in areas of green vegetation on the southern coast between Suakin and the Eritrean border, including the Tokar Delta. Consequently, locust numbers will increase slightly but remain below threatening levels. Breeding is unlikely to occur in Wadi Diib/Oko or on the northern coast unless additional rains fall during the forecast period.

Eritrea

• **SITUATION**

During December, a few isolated solitarious adults were present on the central Red Sea coast at two places near Shelshela (1553N/3906E). No locusts were seen elsewhere along the coast between Tio (1441N/4057E) and Embere (1628N/3856E).

• **FORECAST**

Small-scale breeding will occur on the Red Sea coastal plains in areas that receive rainfall, mainly between Massawa and the Sudanese border. Consequently, locust numbers will increase slightly but remain below threatening levels.

Ethiopia

• **SITUATION**

No surveys were carried out and no locusts were reported during December.

• **FORECAST**

No significant developments are likely.

Djibouti

• **Situation**

No reports were received during December.

• **Forecast**

No significant developments are likely.

Somalia

• **Situation**

A late report indicated that no locusts were seen during a survey carried out on the plateau between Hargeisa (0931N/4402E), Burao (0931N/4533E) and the Ethiopian border on 15-20 November.

In mid-December, no locusts were seen during a survey on the northwest coastal plains between Berbera (1028N/4502E) and the Djibouti border as well as on the escarpment between Silil (1058N/4326E) and Boroma (0956N/4313E).

• **Forecast**

Small-scale breeding could occur on the northwest coast if rain falls during the forecast period. No significant developments are likely.

Egypt

• **Situation**

A late report indicated that no locusts were seen during surveys carried out in the second half of November on the Red Sea coast near Abu Ramad (2224N/3624E), along the Lake Nasser shoreline near Abu Simbel (2219N/3138E) and the Allaqi area, and in the northwest near Salum (3131N/2509E).

During December, no locusts were reported in the above areas as well as in the Red Sea Hills and in the northwest near Siwa (2912N/2531E).

• **Forecast**

Isolated adults may appear on the Red Sea coastal plains between Shalatyn and Halaib. If rains occur, small-scale breeding will cause locust numbers to increase slightly but remain below threatening levels.

Saudi Arabia

• **Situation**

During December, isolated immature solitarious adults were seen at two places on the Red Sea coast near Qunfidah (1909N/4107E). No locusts were seen elsewhere on the coast between Jeddah (2130N/3910E) and Jizan (1656N/4233E) as well as in the interior.

• **Forecast**

Small-scale breeding will occur in areas along the Red Sea coast that receive rainfall during the forecast period. Consequently, locust numbers will increase slightly but remain below threatening levels.

Yemen

• **Situation**

During December, scattered immature solitarious adults were seen at three places on the northern Red Sea coastal plains (Tihama) west of Suq Abs (1600N/4312E).

• **Forecast**

Small-scale breeding will occur along parts of the northern and central Tihama, causing locust numbers to increase slightly but remain below threatening levels. Additional rainfall is required if breeding is to occur elsewhere on the Tihama or along the Gulf of Aden coastal plains.

Oman

• **Situation**

During December, no locusts were seen during surveys carried out along the northern coast (Batinah) and interior (Al Dakhliya, Dhahera, Sharqiya), in the central (Wusta) interior and coast, and in the south (Dhofar). No locusts were reported elsewhere.

• **Forecast**

Small-scale breeding may cause locust numbers to increase slightly in coastal areas between Salalah and Sur and along the eastern edge of the Wahiba Sands.

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

• **Forecast**

No significant developments are likely.

EASTERN REGION

Iran

• **Situation**

During December, no locusts were seen during surveys on the southeastern from Jask (2540N/5746E) to Chabahar (2517N/6036E).

• **Forecast**

Low numbers of locusts may appear on the southeast coastal plains near Chabahar and breed on a small scale in areas that receive rainfall.

Pakistan

• **Situation**

No locusts were seen during surveys carried out in late December along the Baluchistan coast except for isolated solitarious adults that were maturing near Pasni (2515N/6328E).

• Forecast

Low numbers of locusts may appear on the coastal plains in Baluchistan between Jiwani and Ormara and breed on a small scale if rainfall occurs.

India

• **Situation**

During the second fortnight of November, isolated immature solitarious adults were seen at one location between Bikaner (2801N/7322E) and Phalodi (2706N/7222E).

No locusts were seen during surveys carried out in Rajasthan and Gujarat in December.

• **Forecast**

No significant developments are likely.

Afghanistan

• **Situation**

No reports received.

• **Forecast**

No significant developments are likely.

Announcements

Desert Locust warning levels. A colour-coded scheme indicates the seriousness of the current Desert Locust situation: green for *calm*, yellow for *caution*, orange for *threat* and red for *danger*. The scheme is applied to the Locust Watch web page and to the monthly bulletin's header. The levels indicate the perceived risk or threat of current Desert Locust infestations to crops and appropriate actions are suggested for each level.

Locust reporting. During calm (green) periods, countries should report at least once/month and send RAMSES data with a brief interpretation. During caution (yellow), threat (orange) and danger (red) periods, often associated with locust outbreaks, upsurges and plagues, RAMSES output files with a brief interpretation should be sent at least twice/week within 48 hours of the latest survey. Affected countries are also encouraged to prepare decadal bulletins summarizing the situation. 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 tools and resources. FAO has developed a number of tools that National locust information officers and other staff can use for Desert Locust early warning and management:

- **MODIS.** Vegetation imagery every 16 days (http://iridl.ldeo.columbia.edu/maproom/.Food_Security/.Locusts/.Regional/.MODIS/index.html)
- **RFE.** Rainfall estimates every day, decade and month (http://iridl.ldeo.columbia.edu/maproom/.Food_Security/.Locusts/index.html)
- **Greenness maps.** Dynamic maps of green vegetation evolution every decade (http://www.devcocast.eu/user/images/dl/Form.do)
- **FAODLIS Google site.** A platform for sharing problems, solutions, tips and files for eLocust2, eLocust2Mapper, RAMSES and remote sensing (https://sites.google.com/site/faodlis)
- **FAOLOCUST Twitter.** The very latest updates are posted on Twitter (http://twitter.com/faolocust)
- **eLERT.** A dynamic and interactive online database of resources for locust emergencies (http://sites.google.com/site/elertsite)

SWAC website. A new website for the FAO Commission for Controlling the Desert Locust in South-West Asia (SWAC) is now available at http://www.fao.org/ag/locusts/SWAC. Comments are welcome.

New information on Locust Watch. Recent additions to the web site (www.fao.org/ag/locusts) are:

- **Desert Locust situation updates.** Archives Section – Briefs
- **Contacts.** Information Section – Contacts

2012 events. The following activities are scheduled or planned:

- **CLCPRO.** 6th session, Tunis, Tunisia (26-31 March)
- **SWAC/CRC.** Inter-regional national locust information officer workshop, Cairo, Egypt (17-18 April, tbc)
- **CRC.** 7th Sub-regional training course, Amman, Jordan (6-15 May)
- **DLCC.** 40th session, Cairo, Egypt (tbc)

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.

WARNING LEVELS

GREEN

- Calm. No threat to crops. Maintain regular surveys and monitoring.

YELLOW

- Caution. Potential threat to crops. Increased vigilance is required; control operations may be needed.

ORANGE

- Threat. Threat to crops. Survey and control operations must be undertaken.

RED

- Danger. Significant threat to crops. Intensive survey and control operations must be undertaken.

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 and Guinea-Bissau.

CENTRAL

- locust-affected countries along the Red Sea: Djibouti, Egypt, Eritrea, Ethiopia, Oman, Saudi Arabia, Somalia, Sudan, Yemen; during plagues

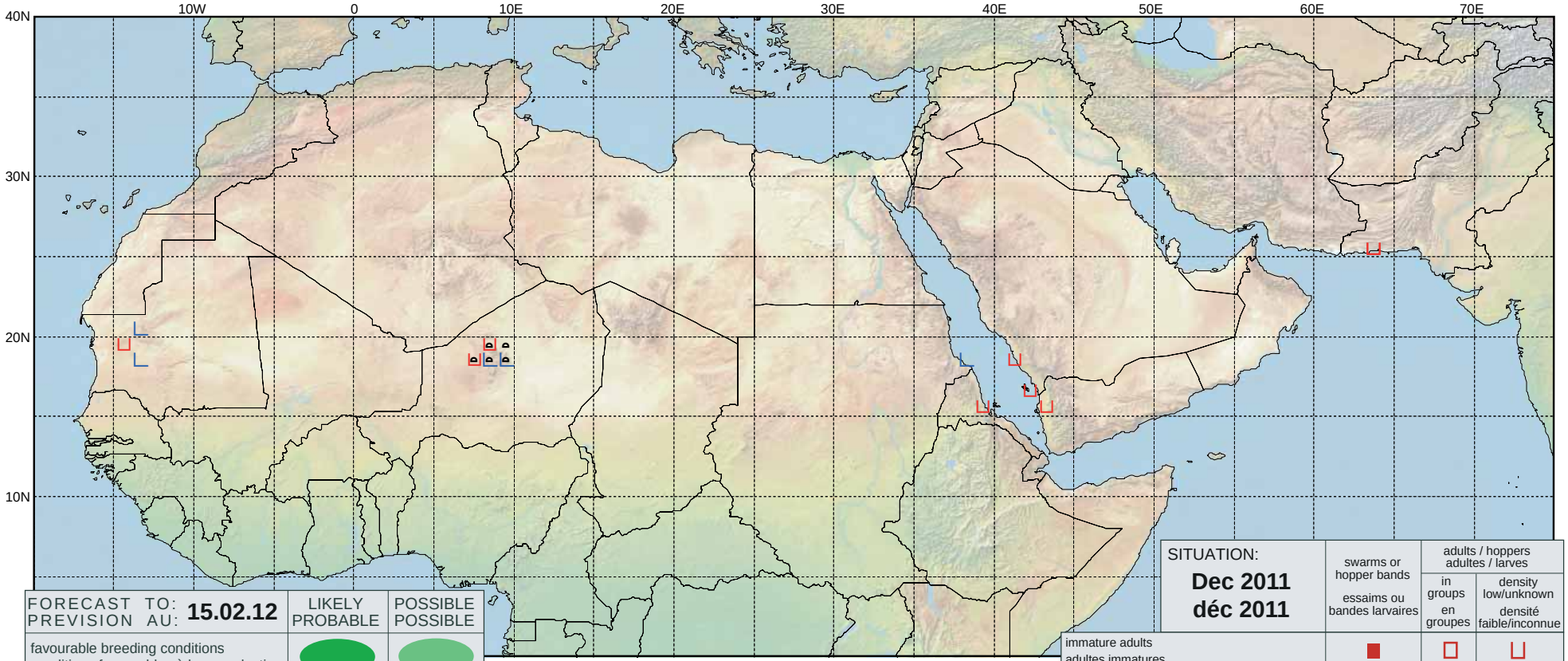
only: Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Qatar, Syria, Tanzania, Turkey, UAE and Uganda.

EASTERN

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

Desert Locust Summary
Criquet pèlerin - Situation résumée

399



FORECAST TO: PREVISION AU: **15.02.12**	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: **Dec 2011 déc 2011**	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)			