

warning level: **CAUTION**

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 402



**General Situation during March 2012
Forecast until mid-May 2012**

(3 Apr 2012)

A Desert Locust outbreak continued during March in southwestern Libya and in adjacent areas of southeastern Algeria. Although national control teams in both countries treated 5,000 ha of groups of gregarizing adults that were laying eggs, locust numbers will almost certainly increase as hatching occurs and hopper bands form during April, especially in areas that are inaccessible. Scattered adults arriving from northern Niger may augment local populations. All efforts are required to monitor the situation carefully and undertake the necessary control operations to avoid a further escalation in the situation. Elsewhere, the situation remains calm. If more rains fall, small-scale breeding may occur in the spring breeding areas in Southwest Asia but locust numbers will remain below threatening levels.

Western Region. The Desert Locust outbreak that developed in early February in southwest **Libya** near the Algerian border continued during March. Additional infestations were found in adjacent areas of southeastern **Algeria**. In both countries, groups of gregarizing adults laid eggs throughout March but hatching was not reported yet. Ground teams treated 3,665 ha in Libya and 1,450 ha in Algeria. It is likely that additional infestations are present in other areas that cannot be accessed along both sides of the border. A second generation of hatching during April is expected to cause locust numbers to increase

dramatically in both countries. Hatchlings will probably form numerous small groups and bands. From about mid-May onwards, fledgling will occur and small groups of immature adults and swarms are likely to form. Although no locusts were reported elsewhere in the region, low numbers of adults may be present in northern **Niger** that could move north into southern Algeria.

Central Region. Vegetation continued to dry out in the winter breeding areas along both sides of the Red Sea due to a lack of rain in March. Consequently, only low numbers of solitary adults were present on the southern coast in **Sudan**. In northern **Oman**, isolated adults were seen at a few more places during March as compared to the previous month, and small-scale breeding could occur if rains fall in April. No locusts were seen during surveys in **Egypt, Eritrea, Ethiopia** and **Saudi Arabia**. No significant developments are likely during the forecast period.

Eastern Region. Breeding conditions continued to improve during March in parts of the spring breeding areas in western **Pakistan** and southeastern **Iran**. Only isolated adults were seen at two places on the coast in Pakistan. During the forecast period, locusts are expected to appear in coastal and interior areas of western Pakistan and southeastern Iran and breed on a small scale if rainfall occurs. Locust numbers will increase slightly but remain below threatening levels. No locusts were seen during routine surveys in Rajasthan, **India**.

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 are available on the Internet.

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No. 402

DESERT LOCUST BULLETIN



Weather & Ecological Conditions in March 2012

Light showers fell at times during March in parts of Mauritania, Algeria, Niger, Ethiopia and Oman. Mainly dry conditions prevailed in the winter breeding areas along both sides of the Red Sea while vegetation was becoming green in parts of the spring breeding areas in Northwest Africa and Southwest Asia.

In the **Western Region**, rain fell at times in parts of Algeria, Mauritania and Niger during March. In Algeria, a few showers may have fallen in the western Sahara between Tindouf and Adrar, in the central Sahara between Adrar and In Salah, and in the Grand Erg Oriental between Ouargla and Ghadames, Libya. In Mauritania, light rain may have fallen in parts of Inchiri and heavier showers occurred in central areas during the third decade. In Niger, light to moderate rain continued to fall on the western edge of the Ténéré Desert near Adrar Madet. During March, vegetation was becoming green in parts of the Sahara in Algeria (southeast of Beni Abbes, near Adrar, In Salah and Illizi) and southwest Libya (northwest of Ghat), in a few places of northwest Mauritania (the northern edge of Amatlich southwest of Oujeff), in parts of eastern and northern Mali (several wadis north of Menaka and near Aguelhoc), and in northern Niger (eastern Tamesna between Tegguidda and Agadez, and near Adrar Madet). Conditions remained favourable for breeding in southwest Libya near Ghat and in adjacent areas of southeast Algeria near Illizi and Djanet; however, vegetation was starting to dry out by the end of the month in some places.

In the **Central Region**, a few showers occurred in parts of Oman and Ethiopia during March. In central Oman, light to moderate rain fell between Hayma and Marmul. In eastern Ethiopia, light rain fell in the third decade between Dire Dawa, Ayasha and Jijiga, extending to Boroma in northern Somalia. Vegetation dried out in the winter breeding areas along both sides of the Red Sea except for parts of Yemen where vegetation was green on the edges of cropping areas on the Tihama between Bayt Al Faqih and Suq Abs.

In the **Eastern Region**, light rain fell in parts of the spring breeding areas in southeast Iran (Jaz Murian Basin) and in the northern interior of western Pakistan (Dalbandin to Nushki). Vegetation was becoming green in Pakistan near cropping areas northeast of Dalbandin, near Nushki, Kharan, and Panjgur, and in the Turbat and Shooli valleys. In southeast Iran, vegetation was becoming green on the eastern and western edges of the Vashnum Plains, along parts of the coast between Chabahar and Jask and in the Jaz Murian Basin. Dry conditions prevailed in Rajasthan, India.



Area Treated

Algeria	1,450 ha (1-28 March)
Libya	3,665 ha (March)



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

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

• FORECAST

Isolated adults may be present in parts of northern Trarza, Inchiri and southwest Adrar where breeding is unlikely unless good rains occur during the forecast period.

Mali

• SITUATION

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

• FORECAST

Low numbers of adults may be present and could persist in the few areas that remain green near Aguelhoc and Menaka. No significant developments are likely.

Niger

• SITUATION

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

• FORECAST

Low numbers of adults may be present in the eastern Tamesna and the western edge of the Ténéré. Small-scale breeding may occur in areas of recent rainfall and cause locust numbers to increase slightly.

Chad

• SITUATION

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

• FORECAST

No significant developments are likely.

Senegal

• SITUATION

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

• 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 March, groups of mature solitary and *transiens* adults were copulating and laying eggs at nearly two dozen places in the southeast about 100 km northwest of Djanet (2434N/0930E) in the Bordj El Haoues area. Densities varied from 20 to 60 adults/m². Solitary and *transiens* adults were also laying eggs near Illizi (2630N/0825E). Ground teams treated 1,450 ha on 1-28 March. No locusts were seen near Adrar (2753N/0017W) and Tindouf (2741N/0811W).

• FORECAST

Locust numbers will almost certainly increase dramatically as a second generation of hatching occurs during April near Djanet and Illizi. Hatchlings are expected to form numerous small groups and bands. From about mid-May onwards, fledgling will occur and small groups of immature adults and swarms are likely to form. Additional infestations may be present in other parts of the southeast that are inaccessible. Low numbers of adults may arrive from northern Niger. Scattered adults may also appear near Adrar, Tindouf and Beni Abbes and breed on a limited scale if rainfall occurs.

Morocco

• SITUATION

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

• FORECAST

Low numbers of adults may appear south of the Atlas Mountains in the Draa and adjacent valleys during April and breed on a small scale if rainfall occurs. No significant developments are likely.

Libya

• SITUATION

The outbreak in the southwest continued during March. Throughout the month, medium to high density groups of mature gregarizing adults were seen copulating and laying eggs at more than two dozen places along the border of Algeria northwest of Ghat (2459N/1011E). The infestations were present within an area of about 80 km by 65 km. Ground teams treated 3,665 ha in March. It is likely that similar infestations are present in other nearby areas that cannot be accessed.

• FORECAST

Locust numbers will almost certainly increase dramatically as a second generation of hatching occurs during April in the Ghat area. Hatchlings are expected to form numerous small groups and bands. From about mid-May onwards, fledgling will occur and small groups of immature adults and swarms are likely to form. Additional infestations may be present in other parts of the west between Sabha and Ghadames.

Tunisia

• SITUATION

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

• FORECAST

No significant developments are likely.

CENTRAL REGION

Sudan

• SITUATION

During the first half of March, scattered mature solitary adults persisted at a few places on the Red Sea coast in the Tokar Delta and near Adobana (1810N/3816E).

• FORECAST

In the absence of further rains, locust numbers will decline on the Red Sea coastal plains. No significant developments are likely.

Eritrea

• SITUATION

A late report indicated that no surveys were carried out and no locusts were reported in February.

On 1-3 March, no locusts were seen during a survey on the central Red Sea coastal plains between Sheib (1551N/3903E) and Naro (1626N/3840E).



No. 402



No. 402

DESERT LOCUST BULLETIN

- **FORECAST**

No significant developments are likely.

Ethiopia

- **SITUATION**

During March, no locusts were seen during surveys carried out in the Somali Region between Dire Dawa (0935N/4150E) and Ayasha (1045N/4234E), and near Jijiga (0922N/4250E).

- **FORECAST**

No significant developments are likely.

Djibouti

- **SITUATION**

No reports were received during March.

- **FORECAST**

No significant developments are likely.

Somalia

- **SITUATION**

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

- **FORECAST**

No significant developments are likely.

Egypt

- **SITUATION**

During March, no locusts were seen on the Red Sea coast between Shalatyn (2308N/3535E) and Halaib (2213N/3638E), in the Red Sea Hills west of Berenice (2359N/3524E), along the Lake Nasser shoreline near Abu Simbel (2219N/3138E) and Tushka (2247N/3126E), and in the northwest on the Mediterranean coast near Salum (3131N/2509E).

- **FORECAST**

No significant developments are likely.

Saudi Arabia

- **SITUATION**

During March, no locusts were seen during surveys on the central Red Sea coast near Thuwal (2215N/3906E), in the Asir Mountains near Khamis Mushait (1819N/4245E) and in the interior.

- **FORECAST**

No significant developments are likely.

Yemen

- **SITUATION**

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

- **FORECAST**

Low numbers of adults are likely to be present in a few places along the central Tihama. Unless further rains fall, breeding is not expected to occur.

Oman

- **SITUATION**

During March, isolated immature solitary adults were seen in Sharqiya Region near the coast southeast of Sur (2234N/5930E) and in Dhahera Region west of Adam (2223N/5731E). Isolated fledglings were also reported near Sur indicating that local breeding occurred in February. No locusts were seen on the Batinah coast or on the Musandam Peninsula.

- **FORECAST**

Adults will mature in coastal areas of Sharqiya and interior areas of Dhahera and breed on a small scale in any areas that receive rainfall during the forecast period.

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 March, no locusts were seen on the southeastern coast between Jask (2540N/5746E) and Chabahar (2517N/6036E).

- **FORECAST**

Low numbers of locusts may appear on the southeastern coastal plains between Jask and Chabahar and in the Jaz Murian Basin in the interior, and breed on a small scale in areas that receive rainfall.

Pakistan

- **SITUATION**

During the first half of March, isolated mature solitary adults persisted at two places on the coast of Baluchistan near Uthal (2548N/6637E). No locusts were seen in the interior near Panjgur (2658N/6406E), Kharan (2832N/6526E) and Nushki (2933N/6601E).

- **Forecast**

Low numbers of locusts will persist near Uthal and are expected to appear in other coastal and interior areas, and breed on a small scale if rainfall occurs.

India

• SITUATION

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

• 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/ECLLO Desert Locust Information Service (ecllo@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 interested individuals 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)
- **MODIS.** Daily rainfall imagery in real time (http://iridl.ldeo.columbia.edu/maproom/.Food_Security/.Locusts/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.devcoast.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>)
- **FAOLocust Facebook.** A social means of information exchange using Facebook (<http://www.facebook.com/pages/FAOLocust/314165595289302>)
- **Slideshare.** Locust presentations and photos available for viewing and download (<http://www.slideshare.net/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
- **Libya outbreak.** Information Section
- **Contacts.** Information Section – Contacts
- **FAO Locust Group.** Activities Section

2012 events. The following activities are scheduled or planned:

- **SWAC/CRC.** Inter-regional national locust information officer workshop, Cairo, Egypt (18-19 April)
- **CRC.** 7th Sub-regional training course, Amman, Jordan (6-15 May)
- **DLCC.** 40th Session, Rome (18-22 June)
- **SWAC.** 28th Session, New Delhi, India (December, tbc)



No. 402

DESERT LOCUST BULLETIN



DESERT LOCUST BULLETIN

**Glossary of terms**

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

NON-GREGARIOUS ADULTS AND HOPPERS**ISOLATED (FEW)**

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

SCATTERED (SOME, LOW NUMBERS)

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

GROUP

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

ADULT SWARM AND HOPPER BAND SIZES**VERY SMALL**

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

SMALL

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

MEDIUM

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

LARGE

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

VERY LARGE

- swarm: 500+ km² • band: 50+ ha

RAINFALL**LIGHT**

- 1 - 20 mm of rainfall.

MODERATE

- 21 - 50 mm of rainfall.

HEAVY

- more than 50 mm of rainfall.

OTHER REPORTING TERMS**BREEDING**

- the process of reproduction from copulation to fledging.

SUMMER RAINS AND BREEDING

- July - September/October

WINTER RAINS AND BREEDING

- October - January/February

SPRING RAINS AND BREEDING

- February - June/July

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.



No. 402

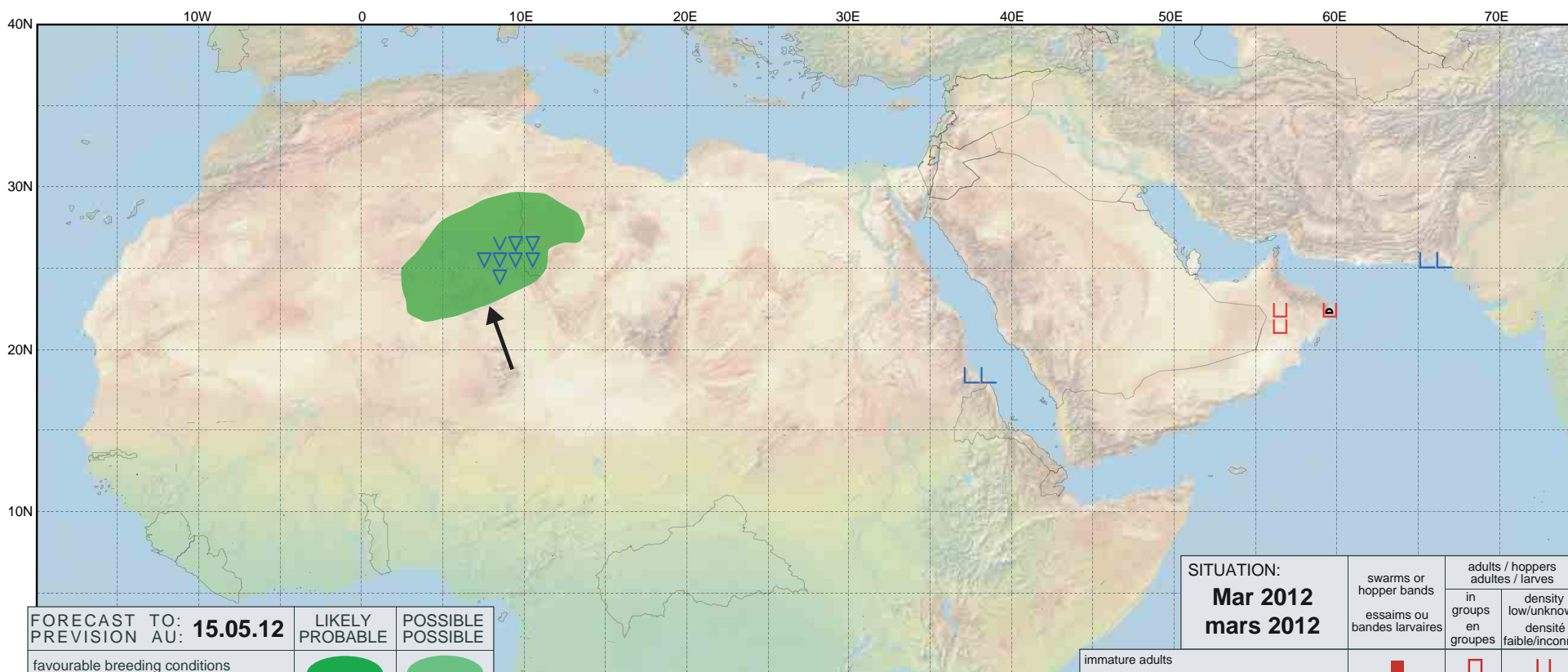
DESERT LOCUST BULLETIN

page **7** of 8



Desert Locust Summary

Criquet pèlerin - Situation résumée



FORECAST TO: PREVISION AU:	LIKELY PROBABLE	POSSIBLE POSSIBLE
15.05.12		
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: Mar 2012 mars 2012	swarms or hopper bands	adults / hoppers adultes / larves	
	essaims ou bandes larvaires	in groups en groupes	density low/unknown densité faible/inconnue
immature adults adultes immatures			
mature or partly mature adults adultes matures ou partiellement matures			
adults, maturity unknown adultes, maturité inconnue			
egg laying or eggs pontes ou œufs			
hoppers larves			
hoppers & adults (combined symbol example) larves et adultes (exemple symboles combinés)			