

warning level: **CALM**

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 378

(2 Apr 2010)



General Situation during March 2010 Forecast until mid-May 2010

The Desert Locust situation continued to remain calm during March in all countries because of continuing poor rainfall and ecological conditions. Ground teams treated very small hopper groups and bands that formed in one area on the Red Sea coast in Saudi Arabia and, by the end of the month, the situation was reported to be under control. Elsewhere, isolated adults persisted in Mauritania and Sudan, and low numbers of adults appeared in the spring breeding areas along the border of Morocco and Algeria, and in western Pakistan. During the forecast period, small-scale breeding is likely to occur in the spring breeding areas in Northwest Africa and Southwest Asia but locust numbers are expected to remain below threatening levels. There is a moderate risk that some adults could move from the Red Sea coast of Saudi Arabia into adjacent areas of the interior and breed on a small scale.

Western Region. The locust situation remained calm during March throughout the Region. Low numbers of solitary adults persisted in northwest and northern Mauritania. Scattered solitary adults appeared in areas of recent rainfall south of the Atlas Mountains in northeast Morocco along the border with Algeria. Some of the adults were seen laying eggs. A few adults were also reported in the central Sahara in Algeria. During the forecast period, scattered adults will persist in Mauritania and small-scale breeding will occur in parts of Morocco and Algeria but locust

numbers will remain low. Elsewhere in the Region, ecological conditions remained dry and no locusts were reported.

Central Region. The locust situation remained calm during March except for one area on the Red Sea coast in Saudi Arabia where numerous very small hopper groups and bands formed as a result of local breeding and concentration in vegetation that remained green. Ground teams treated 153 ha. As good rains fell in the spring breeding areas in the interior of Saudi Arabia, there is a moderate risk that adults could move from the coast into these areas and breed on a small scale. Good rains also fell in the interior of Yemen where low numbers of adults could appear. Low numbers of adults were present in a few areas along the coast in Sudan. Dry conditions prevailed and no locusts were reported in other countries in the Region.

Eastern Region. Isolated adults appeared in a few places in the spring breeding areas of western Pakistan from late February onwards. Although breeding conditions in March remained unfavourable in Pakistan, they improved in parts of southeastern Iran. During the forecast period, small-scale breeding is likely to occur in both countries but locust numbers should remain low. A joint Iran/Pakistan survey will be conducted during April to monitor the situation.

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.

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Weather & Ecological Conditions in March 2010

Very little rain fell during March in the recession area. Nevertheless, ecological conditions improved slightly in the spring breeding areas of Northwest Africa and Southwest Asia. Elsewhere, mainly dry conditions prevailed.

In the **Western Region**, no significant rain fell in the Desert Locust breeding areas during March. As a result, ecological conditions were mainly dry and not favourable for breeding except for a few places on the southern side of the Atlas Mountains in Northwest Africa. In Morocco, annual vegetation remained green near the Algerian border in the Ziz-Ghris Valley, Draa Valley and near Figuig. In the Western Sahara, vegetation was dry. In Algeria, ecological conditions continued to be favourable for breeding in parts of the central and western Sahara near Adrar, southwest of Bechar and Beni Abbes, and near Tindouf. In Mauritania, ecological conditions were sufficiently favourable in a few places to allow locust survival in the north and northwest. Annual vegetation was drying out in most areas and conditions were becoming increasingly unfavourable for breeding except in some low-lying areas in parts of Tiris Zemmour and near cultivations in Inchiri and southwestern Adrar. Small patches of green vegetation may be present in a few limited areas of the Adrar des Iforas in northern Mali and the Air Mountains in Niger.

In the **Central Region**, no significant rain fell along the both sides of the Red Sea during March. Consequently, vegetation was dry and ecological conditions remained unfavourable in the winter breeding areas except on the Red Sea coast north of Jeddah from earlier rains. Conditions also remained dry along both sides of the Gulf of Aden except for a few places on the southern coast of Yemen northwest of Aden where green vegetation was present. Light rains fell during the last week of March in the spring breeding areas of the northern interior of Saudi Arabia. Light to moderate rains fell in the summer breeding areas of Shabwah and Hadhramaut in the interior of Yemen that could cause ecological conditions to become favourable for breeding earlier than in most years. Good rains also fell on the plateau of northwest

Somalia and in adjacent areas of eastern Ethiopia. Light showers were reported in parts of northern and central Oman but vegetation remained dry and conditions were not favourable for breeding.

In the **Eastern Region**, good rains fell at times during March in the spring breeding areas along the southeast coast of Iran near Jask and in adjacent areas of the interior. Consequently, ecological conditions were favourable in few places, mainly along the coast. Mainly dry conditions prevailed in the spring breeding areas in western Pakistan and along both sides of the Indo-Pakistan border.



Area Treated

Saudi Arabia 153 ha (March)



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

During March, isolated solitary adults were present and maturing in a few places in the northwest between Akjoujt (1945N/1421W) and Ouadane (2056N/1137W) while mainly isolated immature solitary adults were seen further north near Zouerate (2244N/1221W).

• FORECAST

Low numbers of solitary adults will persist in parts of Inchiri, southwest Adrar and southern Tiris-Zemmour. Breeding is unlikely to occur unless further rains fall.

Mali

• SITUATION

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

• FORECAST

Isolated adults may be present and will persist in parts of the Adrar des Iforas.

Niger

• SITUATION

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

• Forecast

Isolated adults are likely to persist in the east and southeast of the Air Mountains where they will breed on a small-scale if rainfall occurs.

Chad

• SITUATION

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

• FORECAST

No significant developments are likely.

Senegal

• SITUATION

No reports were received during 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, a few isolated immature solitary adults were seen at two places between In Salah (2712N/0229E) and Tamanrasset (2250N/0528E). No locusts were seen during surveys carried out in the west near Tindouf (2741N/0811W) and southwest of Beni Abbes (3011N/0214W), in the central Sahara between Adrar (2753N/0017W) and In Salah, in the south near Tamanrasset (2250N/0528E), and in the east near Djanet (2434N/0930E).

• FORECAST

Low numbers of locusts may be present and could breed on a small scale southwest of Beni Abbes, near Bechar and the Moroccan border, and in the central Sahara near Adrar.

Morocco

• SITUATION

During March, isolated immature solitary adults were present at several places along the Algerian border between Erfoud (3128N/0410W) and Figuig (3207N/0113W). Isolated mature solitary adults were seen in a few places in the Draa Valley southwest of Zagora (3019N/0550W), where some adults were copulating, and south of Tata (2944N/0758W) along the Algerian border.

• FORECAST

Limited hatching will occur by the end of April in parts of the Draa Valley and small-scale breeding is likely along the Algerian border south of Bouarfa, causing locust numbers to increase slightly but remain below threatening levels.

Libyan Arab Jamahiriya

• SITUATION

No locusts were seen during surveys carried out on 1-3 March in the southwest between Ghat (2459N/1011E) and Ghadames (3010N/0930E).

• FORECAST

Low numbers of adults may be present and could persist in parts of the southwest near Ghat and Ghadames.

Tunisia

• SITUATION

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

• FORECAST

No significant developments are likely.

CENTRAL REGION

Sudan

• SITUATION

During March, scattered mature solitary adults were seen at one place in the Tokar Delta on the Red Sea coast. Low numbers of solitary fourth and fifth instar hoppers and mature adults were present on the northern coast near Mohamed Qol (2054N/3709E).

• FORECAST

No significant developments are likely.

Eritrea

• SITUATION

No reports were received during March.

• FORECAST

No significant developments are likely.

Ethiopia

• SITUATION

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

• FORECAST

No significant developments are likely.

Djibouti

• SITUATION

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

• FORECAST

No significant developments are likely.



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Somalia

• SITUATION

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

• FORECAST

No significant developments are likely.

Egypt

• SITUATION

No locusts were seen during surveys carried out in March on the Red Sea coast and nearby subcoastal areas between Berenice (2359N/3524E) and the Sudanese border, and along the western shore of Lake Nasser between Abu Simbel (2219N/3138E) and Tushka (2247N/3126E).

• FORECAST

No significant developments are likely.

Saudi Arabia

• SITUATION

During March, local breeding occurred on the Red Sea coast between Jeddah (2130N/3910E) and Rabigh (2247N/3901E). As vegetation was drying out, first to fourth instar hoppers concentrated and formed numerous very small groups and bands. Ground teams treated 153 ha. Mature solitarious adults were also present, and some adults were copulating. No locusts were seen elsewhere on the coast or in the interior.

• FORECAST

Unless further rains fall, breeding should end on the Red Sea coast. Any remaining locusts that escape detection or control are likely to move into the spring breeding areas of the interior where they will mature and could lay eggs in areas of recent rainfall.

Yemen

• SITUATION

No locusts were seen during surveys carried out in mid-March on the central and northern Tihama coast of the Red Sea and on the Gulf of Aden coastal plains west of Aden (1250N/4503E).

• FORECAST

Low numbers of solitarious adults could appear in areas of recent rainfall in Shabwah and Hadhramaut.

Oman

• SITUATION

No locusts were seen during surveys carried out in March along the northern Batinah coast, in the interior regions of Buraimi, Dhahira, Dakhliya, and Wusta, and in the southern region of Dhofar.

• FORECAST

Low numbers of adults may appear and breed on a small scale in areas of recent rainfall on the Batinah coast and in the central interior near Marmul.

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 during surveys carried out on the southeast coast near Jask (2540N/5746E) and at one place in the Jaz Murian Basin southeast of Kahnuj (2757N/5742E).

• FORECAST

Small-scale breeding is likely to occur in areas of recent rainfall on the southeastern coast near Jask and in the adjacent interior southeast of Kahnuj, causing locust numbers to increase slightly but remain below threatening levels.

Pakistan

• SITUATION

During the second half of February, isolated mature solitarious adults were seen at three places near the coast in the spring breeding areas of Baluchistan near Pasni (2515N/6328E) and Uthal (2548N/6637E).

During the first half of March, isolated mature solitarious adults were seen at three places near Uthal, Gwadar (2508N/6219E) and Jiwani (2502N/6150E).

• Forecast

Small-scale breeding is likely to occur in areas of recent rainfall, mainly near Pasni and Turbat, causing locust numbers to increase slightly but remain below threatening levels.

India

• SITUATION

No locusts were seen during intensive surveys carried out in March in the summer breeding areas in Rajasthan and Gujarat.

• 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.

Google group. FAO DLIS has established a Google group for national locust information officers to exchange opinions and share experiences regarding data management and analysis, GIS, eLocust2, eLocust2Mapper and satellite imagery. Interested information officers should contact DLIS (eclo@fao.org) for details.

MODIS imagery. Columbia University's International Research Institute for Climate and Society (IRI) provides 16-day 250-metre resolution MODIS imagery as well as daily and decadal rainfall imagery for monitoring breeding conditions in the Desert Locust recession area. These products can be downloaded in different formats suitable for GIS at: http://iridl.ldeo.columbia.edu/maproom/.Food_Security/Locusts/index.html. The site is available in English and French. Address comments and questions to Pietro Ceccato (pceccato@iri.columbia.edu).

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

- **Desert Locust situation updates.** Archives Section – Briefs
- **Desert Locust risk map update.** Archives Section – Risk maps

Locust Watch in Caucasus and Central Asia. The Locust Group at FAO has launched a new website (www.fao.org/ag/locusts-CCA/en/index.html) that contains information in English and Russian on three locust pests in the Caucasus and Central Asia, the current situation, potential impact on food security, and national and regional level activities.

2010 events. The following activities are scheduled or planned:

- **SWAC/CRC Locust Information Officers.** 3rd Inter-regional workshop on the use and improvement of RAMSES and eLocust2, Cairo, Egypt (18-19 April)
- **SWAC/CRC Master Trainers.** 2nd Master Trainers training course, Ramsar, Iran (8-13 May)
- **CLCPRO.** 6th session of Executive Committee, Ouagadougou, Burkina Faso (28-30 June)
- **CRC training.** 3rd regional aerial Desert Locust training course, Moshi, Tanzania (2-6 Aug)
- **CRC.** 31st session of Executive Committee and 27th session of Commission, Beirut, Lebanon (20-24 Sep)
- **SWAC.** 27th session, Islamabad, Pakistan (Dec)



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).



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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

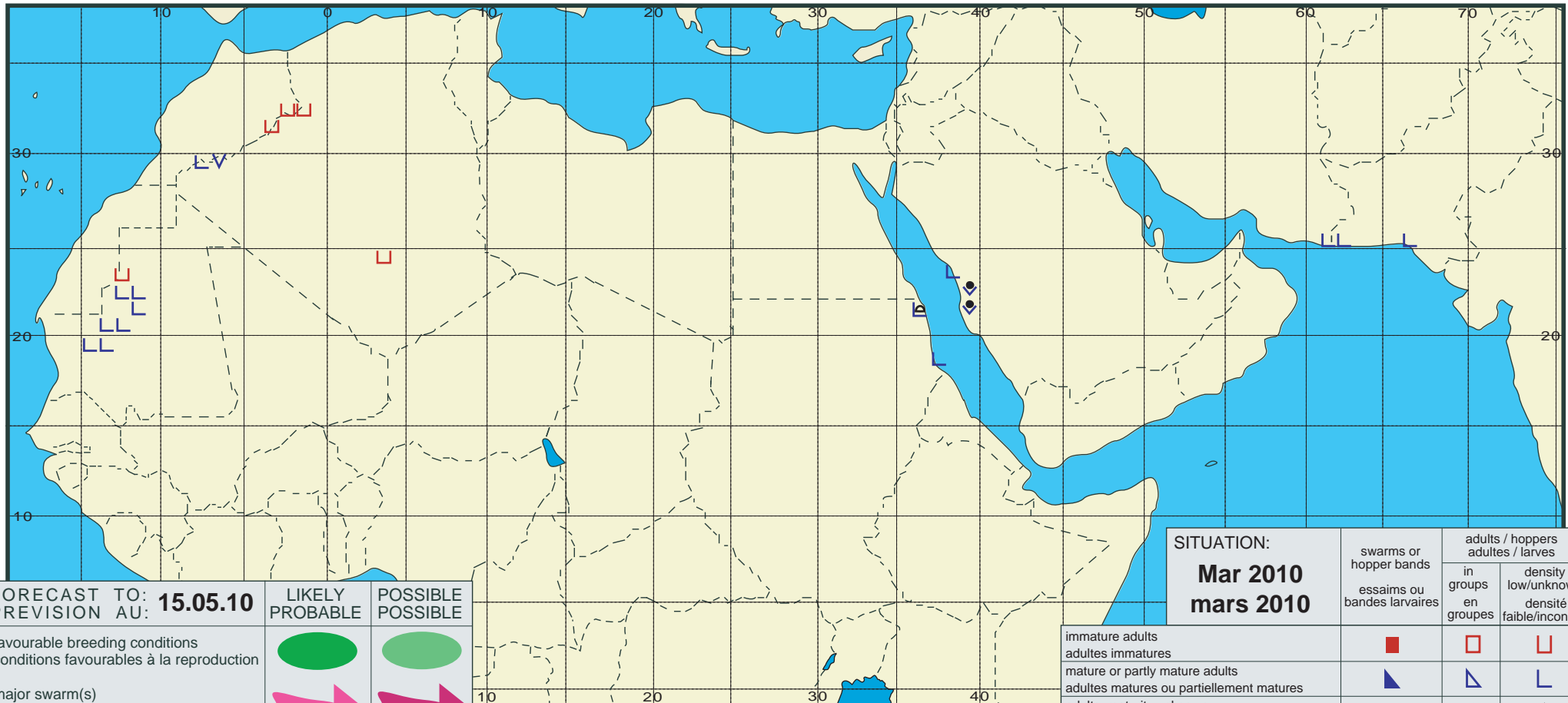
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU: 15.05.10	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favorables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarm(s) essaim(s) limité(s)		
non swarming adults adultes non essaimant		

SITUATION: Mar 2010 mars 2010	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)			