Food and Agriculture Organization of the United Nations

No. 500 4 JUNE 2020

Desert Locust Bulletin

General situation during May 2020
Forecast until mid-July 2020

WESTERN REGION: CALM

SITUATION. Isolated breeding in **Algeria**; unconfirmed adults in northern **Mali**.

FORECAST. Sahel breeding will start with the onset of rains. Risk of swarms appearing in eastern **Chad** after mid-June and moving westwards to **Niger**, **Nigeria**, **Mali**, **Burkina Faso**, and **Mauritania**.

CENTRAL REGION: THREAT

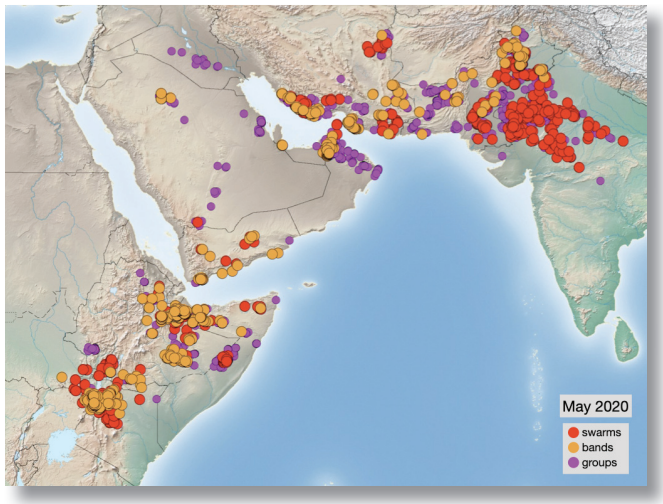
SITUATION. Control operations against late first-generation swarms and second-generation hopper bands in northwest **Kenya** (18 737 ha treated), **Ethiopia** (57 058 ha), and **Somalia** (10 245 ha); local breeding in **South Sudan**, a few swarms appear in **Uganda**. Immature groups form in northeast **Saudi Arabia** (9 015 ha), hopper bands form immature groups in **Oman** (1 385 ha) and **UAE** (4 537 ha) with some moving to north coast; hopper groups in **Iraq** (101 ha); swarm breeding in **Yemen** interior; scattered adults in **Sudan**.

FORECAST. Second-generation hatching and band formation in **Kenya**, **Ethiopia**, and **Somalia** with new swarms in mid-June. A few swarms may invade **South Sudan** and **Uganda** and move north. Immature adult groups and swarms to form in **Saudi Arabia** and **Oman** and move to summer breeding areas. Bands and swarms to form in **Yemen**. Swarms from East Africa may arrive in **Eritrea** and **Sudan** from mid-June onwards.

EASTERN REGION: THREAT

SITUATION. Spring-bred hopper and adult groups, bands and swarms in southern **Iran** (101 138 ha treated) and Baluchistan, Indus Valley, and Punjab of **Pakistan** (76 466 ha). Immature swarms arrive early in Rajasthan and some continue to northern states in **India** (53 604 ha).

FORECAST. Spring-bred swarms will form in southern **Iran** and southwest **Pakistan** and migrate during June to the Indo-Pakistan border for breeding with the onset of the monsoon. Swarms will oscillate in northern **India** before returning to Rajasthan in late June. Swarms from the Horn of Africa expected to arrive from early July onwards.



Spring-bred swarms will spread to summer breeding areas

The unprecedented Desert Locust threat to food security and livelihoods continues in the Horn of Africa and is likely to spread to southwest Asia and perhaps West Africa. Early migration of spring-bred swarms from southwest Pakistan to Rajasthan, India occurred in May before the monsoon and some swarms continued to northern states for the first time since 1962. The swarms will oscillate east and westwards before returning to lay eggs with the onset of the monsoon in Rajasthan where successive waves of swarms will arrive from southern Iran in June and the Horn of Africa in July. Second-generation breeding is underway in northwest Kenya and numerous hopper bands have formed that will give rise to immature swarms from the second week of June until at least mid-July. A similar situation is underway in Somalia and Ethiopia. Most of the new swarms will migrate northwards from Kenya to Ethiopia and traverse South Sudan to Sudan after mid-June while other swarms will move to northern Ethiopia. Swarms that reach northeast Somalia are likely to migrate across the northern Indian Ocean to the Indo-Pakistan border area. Breeding is in progress in Yemen where swarms are likely to form, some of which could migrate to northern Somalia and northeast Ethiopia. Although summer rains have commenced in the south of Sudan, there is a risk that some swarms from Kenya and Ethiopia that arrive in Sudan could continue to eastern Chad and move further west.

The FAO Desert Locust Bulletin is issued every month by the Desert Locust Information Service (DLIS) at FAO HQ in Rome, Italy. DLIS continuously monitors the global Desert Locust situation, weather and ecology to provide early warning based on survey and control results from affected countries, combined with remote sensing, historical data and models. The bulletin is supplemented by Alerts and Updates during periods of increased Desert Locust activity.

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Weather & Ecological Conditions in May 2020

Conditions dry out in spring breeding areas of southwest Asia but remain favourable in East Africa. Summer rains start in the extreme south of Sudan.

WESTERN REGION

During May, only light, localized showers fell at times in the Tahoua area of Niger and in southeast Mauritania. Consequently, dry and unfavourable conditions prevailed in the Sahel of West Africa as well as in Northwest Africa, except near irrigated agricultural perimeters in the Adrar Valley in the central Sahara of Algeria.

CENTRAL REGION

During May, moderate to heavy showers fell in central Somalia and southern, eastern, and northern Ethiopia during the first decade. Lighter showers fell during the second decade in central Somalia and parts of eastern and northern Ethiopia. During the third decade, light to moderate rains fell again on the Somali plateau in the northeast and northwest, extending to Ethiopia. Consequently, breeding conditions continued to be favourable in most areas. Although little rain fell in Kenya, breeding conditions remained favourable in the northwest (Turkana, Marsabit). In Yemen, good rains fell in the northeastern interior between Thamud and the Oman border and in the Al Jawf region of the northwest, extending to Najran in southwest Saudi Arabia, during the first decade. Moderate to heavy rains fell along the entire southern coast during the third decade, including a tropical storm that brought heavy rains to coastal areas of eastern Yemen near Al Ghaydah, Yemen as well as coastal and interior areas of Dhofar in southern Oman on 28–31 May. Light showers fell at times in northern Oman. In the summer breeding areas of Sudan, the Inter-Tropical Convergence Zone (ITCZ) continues its seasonal movement northwards, reaching South Kordofan and En Nahud by the end of the month. Consequently, summer rains commenced north of the South Sudan border in parts Blue Nile, South Kordofan near Kadugli, and southern areas of West Kordofan states at mid-month. In Eritrea, light to moderate rains fell during the first two decades in northern areas of the western lowlands.

EASTERN REGION

Showers fell sporadically in parts of the spring breeding areas in southern Iran and southwest Pakistan during May. Consequently, breeding conditions were declining, and vegetation was drying out, especially in Baluchistan, Pakistan where it quickly dried out earlier than normal. By the end of the month, only small localized areas of green vegetation remained in southern Kerman and South Khorasan. Heavier rains fell in Punjab and parts of the Indus Valley in Pakistan. Dry conditions prevailed in the summer breeding areas along both sides of the Indo-Pakistan border. Strong westerly winds associated with Cyclone Amphan, the first cyclone of the 2020 North Indian Ocean cyclone season, prevailed over northern India during the third week of May.

Area Treated

Control operations treated more than 332 000 ha in May compared to nearly 305 000 ha in April.

Ethiopia	57 058 ha
India	53 604 ha
Iran	101 138 ha
Iraq	101 ha
Kenya	16 594 ha (April, revised)
	18 737 ha
Oman	1 385 ha
Pakistan	76 466 ha
Saudi Arabia	9 015 ha
Somalia	10 245 ha
UAE	4 537 ha
Uganda	(not reported)

Desert Locust Situation and Forecast

WESTERN REGION

Mauritania

• **SITUATION**

No locusts were reported during April and May.

• **FORECAST**

Small-scale breeding will commence in the southeast with the onset of the summer rains.

Mali

• **SITUATION**

During May, isolated immature and mature solitarious adults were reported by locals in the Adrar des Iforas of the northeast near Aguelhoc (1927N/0052E).

• **FORECAST**

Isolated adults are likely to persist in a few places of the Adrar des Iforas. Small-scale breeding will commence with the onset of the summer rains. There is a risk that swarms may arrive in the east in mid-July and continue westwards in the absence of rainfall.

Niger

• **SITUATION**

No locusts were reported during May.

• **FORECAST**

Small-scale breeding will commence in the central pasture areas and on the Tamesna Plains with the onset of the summer rains. There is a risk that swarms could arrive in the east from the first week of July onwards and continue westwards in the absence of rainfall.

Chad

• **SITUATION**

No locusts were reported during May.

• **FORECAST**

If rains do not fall in adjacent areas of Sudan during June, there is a risk that swarms from East Africa could arrive in the east from the last week of June onwards and continue westwards in the absence of rainfall. Small-scale breeding will commence in central and eastern areas with the onset of the summer rains.

Senegal

• **SITUATION**

No reports were received during May.

• **FORECAST**

No significant developments are likely.

Nigeria

• **FORECAST**

There is a risk that swarms from could arrive in the east from the first week of July onwards and continue westwards in the absence of rainfall.

Burkina Faso

• **FORECAST**

There is a risk that swarms may arrive in the east in mid-July and continue westwards in the absence of rainfall.

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

• **FORECAST**

No significant developments are likely.

Algeria

• **SITUATION**

During May, local breeding occurred in the Adrar (2753N/0017W) Valley of the central Sahara where isolated fledglings, immature and mature solitarious adults were present. Isolated mature solitarious adults were seen in the south near Tamanrasset (2250N/0528E).

• **FORECAST**

No significant developments are likely.

Morocco

• **SITUATION**

No locusts were reported during May.

• **FORECAST**

No significant developments are likely.

Libya

• **SITUATION**

No locusts were reported during May.

• **FORECAST**

No significant developments are likely.

Tunisia

• **SITUATION**

No locusts were reported during May.

• **FORECAST**

No significant developments are likely.

CENTRAL REGION

Sudan

• **SITUATION**

During May, scattered mature solitarious adults were present in the Nile Valley between Shendi and Dongola, and in Kassala State near Kassala (1527N/3623E). On 15–18 May, scattered immature and mature gregarious adults were seen north of the South Sudan border near Rabak (1310N/3245E) in White Nile state, near Damazin (1148N/3421E) in Blue Nile, and in the extreme southeast of South Kordofan. No locusts were seen elsewhere in South and West Kordofan.

• **FORECAST**

There remains a low to moderate risk that a few small swarms from the northern Arabian Peninsula may arrive during the first half of June. A larger number of swarms from Kenya and Ethiopia may arrive from the last week of June in Blue Nile, White Nile, South Kordofan, and South Darfur and move towards North Darfur and North Kordofan if rains fall; otherwise, they are likely to move towards the west to Chad. Breeding will commence with the onset of the summer rains and could occur further south than normal.

Eritrea

• **SITUATION**

No surveys were undertaken during May but there were unconfirmed reports from locals and farmers of a few swarmlets on the border of Ethiopia at the end of the month.

• **FORECAST**

A few swarms from adjacent areas of northern Ethiopia may arrive in the south and in the western lowlands.

Ethiopia

• **SITUATION**

During May, immature swarms remained in the southern region of SNNPR (South and North Omo districts) until about mid-month. Thereafter, groups of mature adults were seen to the west in Bench district and Gambela region, and a few mature swarms were present to the east in Borena district where early instar hopper bands

had been seen earlier in the month. In the Somali region, mature swarms laid eggs in the Ogaden during the first half of the month and widespread hatching and band formation occurred between El Kere (0550N/4205E) and Degeh Bur (0813N/4333E) from earlier breeding. Hopper bands, immature and mature swarms were present further north from west of Dire Dawa (0935N/4150E) to Ayasha (1045N/4234E). Mature adult groups and swarms moved into the Afar region where egg-laying occurred in a few places with hatching and band formation during the last week. A mature group was reported in the Tigray highlands near Mekele (1329N/3928E) on the 22nd. Control operations treated 57 058 ha of which 16 354 ha were by air.

• **FORECAST**

In the Somali region, swarms will continue to form near Dire Dawa, supplement by swarm formation in the Ogaden from mid-June onwards and Afar in July. While many of the swarm will remain in areas that received heavy rains and mature, some swarms are likely to move to Amhara, and Tigray where breeding could occur. There is a risk that some swarms may arrive from Yemen in July.

Djibouti

• **SITUATION**

No surveys were undertaken and no locusts were reported during May.

• **FORECAST**

A few groups and small swarms may appear at times in the south from adjacent areas of Ethiopia and Somalia. This could be supplemented by a few swarms arriving from Yemen.

Somalia

• **SITUATION**

During May, adult groups and swarms were present and laying eggs on the northern plateau between Boroma (0956N/4313E), Iskushuban (1017N/5014E), and Garowe (0824N/4829E), and in the central region of Galguduud between Galkayo (0646N/4725E) and Dusa Mareb (0532N/4623E). Hopper groups and bands of mixed instars were present in these areas as well as on the northwest coast between Berbera (1028N/4502E) and Bulhar (1023N/4425E). Control operations treated 10 245 ha using biopesticides.

• **FORECAST**

Locust numbers will continue to increase further as hatching continues, causing additional hopper groups and bands to form in northern and central areas. An increasing number of immature swarms will form throughout the forecast period.

Kenya

• **SITUATION**

During May, swarm laying, hatching, and the formation of an increasing number of hopper bands occurred in the northwest (Turkana, Marsabit counties). Late maturing swarms will also present in Samburu while a few swarms were reported in Wajir county. By the end of the month, hopper bands had reached fourth instar. In Turkana county, most infestations were located south of Lodwar (0307N/3535E). Control operations treated 18 737 ha of which 17 067 ha were by air.

• **FORECAST**

An increasing number of second-generation immature swarms will start to form from hopper bands in Turkana and Marsabit during the second week of June and continue to at least mid-July. A limited number of swarms may form in other central and northern counties from undetected breeding. As conditions dry out, swarms will move northwards to adjacent countries.

Uganda

• **SITUATION**

During May, a few maturing swarms appeared in the northeast from adjacent areas of Kenya. On the 16th, a swarm was seen south of the South Sudan border and close to Kidepo Valley National Park in Karenga district. On the 20th, a swarm flew northwards over Moroto (0231N/3439E) and there was a swarm report in Karenga on the 26th. Control operations were carried out but not reported.

• **FORECAST**

A few swarms are likely to arrive from adjacent areas of Kenya in the northeast and continue northwards.

South Sudan

• **SITUATION**

During the second week of May, scattered adults were reportedly copulating northeast of Torit (0424N/3234E) in Eastern Equatoria and mid-instar hoppers and a hopper band were present. A few mature swarms were seen southeast of Kapoeta (0446N/3335E) near the Kenya border on the 9th that may have moved northeast to East Kapoeta where they were seen on 13–15 May before crossing to Ethiopia.

• **FORECAST**

Immature swarms are likely to arrive in Eastern Equatoria and continue northwards to Sudan from mid-June onwards.

Egypt

• **SITUATION**

During May, no locusts were seen on the Red Sea coast and in subcoastal areas between Marsa Alam (2504N/3454E) and the Sudan border.

• **FORECAST**

No significant developments are likely.

Saudi Arabia

• **SITUATION**

During the first week of May, immature adult groups formed in areas of previous breeding near the Persian Gulf between Dammam (2625N/5003E) and Al Hofuf (2523N/4935E).

Some of these groups moved towards the southwest where mature adult groups were seen between Wadi Dawasir (2028N/4747E) and Najran (1729N/4408E). In the Nafud Desert of the north, second to fourth instar hopper bands were present between Hail (2731N/4141E) and Al Jawf (2948N/3952E) in the first week and immature groups formed after mid-month. On the 9th, a mature swarm appeared near Najran, probably coming from Yemen, and was seen copulating. Ground teams treated 9 015 ha.

• **FORECAST**

Limited breeding may occur in the southwest in areas of recent rain near Najran.

Yemen

• **SITUATION**

During May, widespread laying by groups and swarms occurred in the interior of Hadhramaut, Shabwah, Al Mahrah, Abyan, Al Jawf, Lahij, and Marib governorates. Hatching and band formation started during the second week near Marib (1527N/4519E) and north of Wadi Hadhramaut. On the southern coast, late instar hopper bands were present near Aden (1250N/4503E), Ahwar (1333N/4644E), and Sayhut (1512N/5115E). A mature swarm was seen close to the coast near Mayfa'a (1417N/4734E) on the 19th and groups of maturing adults were present near Al Ghaydah (1612N/5210E) early in the month. On the 31st, there were reports of immature and mature swarms near Aden. On the Red Sea coast, scattered immature solitarious adults were present between Suq Abs (1600N/4312E) and Bayt Al Faqih (1430N/4317E). Control operations were not possible.

• **FORECAST**

Breeding will continue in the interior, especially in the northeast (Thamud–Shehan) and the northwest (Al Jawf), and on the southern coast that will cause hopper bands and swarms to form. Local breeding will occur along the Red Sea coastal plains.

Oman

• **SITUATION**

During the first half of May, scattered immature and mature adults and groups were present on the northern Batinah coast near Rustaq (2323N/5725E) and in the northern interior. Late breeding occurred in the northeast near Ras Al Hadd (2232N/5948E) where first instar hopper groups were present at the beginning of the month and fifth instar hoppers were seen during the third week. Late instar hopper groups were present in the interior near Buraimi (2415N/5547E) and the UAE border. After mid-month, groups of immature adults formed near Buraimi. Some of the groups moved northeast on the 25–26th from Buraimi to the Musandam Peninsula and Mahda (2518N/5620E) where two immature swarms were reported, and immature adults were seen washed up on the shore near Sohar (2421N/5644E). On the 28th, several immature groups were seen near Ras Al Had. Ground teams treated 1 385 ha.

• **FORECAST**

As conditions dry out, adult groups and small swarms in northern coastal areas are likely to move to the Indo-Pakistan border while those in the interior south of the Al Hajar Mountains are more likely to move south towards eastern Yemen.

UAE

• **SITUATION**

During the first half of May, numerous hopper bands of varying instars and immature adult groups were present along the border of Oman from Al Qou'a (2324N/5525E) to Al Ain (2413N/5545E) and Al Shiwayb (2445N/5548E). Some of the adult groups moved north towards the coast and an immature swarm overflew Dubai (2516N/5518E) on the 24th. A few hopper bands and immature adult groups were seen in the west near the Saudi Arabian border at Ras Ghumais (2421N/5136E) where breeding had occurred in April. Ground teams treated 4 537 ha up to 18 May.

• **FORECAST**

A few adult groups may be present near Al Ain where they are likely to migrate either southwest towards Yemen or east towards Indo-Pakistan.

Iraq

• **SITUATION**

During May, hopper groups were present in areas of previous breeding Karbala (3236N/4401E) and Nasiriyah (3103N/4616E). Ground teams treated 101 ha up to 20 May.

• **FORECAST**

Locust numbers will decline as vegetation dries out and adults move southwards.

Bahrain, D.R. Congo, Israel, Jordan, Kuwait, Lebanon, Palestine, Qatar, Syria, Tanzania, and Turkey

• **FORECAST**

No significant developments are likely.

EASTERN REGION

Iran

• **SITUATION**

During May, fourth and fifth instar hopper groups and bands were present on the southwest coast between Bushehr (2854N/5050E) and Bander-e Lengheh (2634N/5452E), and in coastal and interior areas of the southeast that gave rise to an increasing number of immature adult groups and swarms. In the southeast, early instar hopper groups and bands formed on the coast near Jask (2540N/5746E), Jaz Murian Basin, and in the northern interior near Saravan (2721N/6220E) and Zahedan (2930N/6051E) from another generation of breeding. In South Khorasan, mature swarms were reported between Sarbisheh (3235N/5948E) and the

Afghan border early in the month. Ground teams treated 101 138 ha of which 300 ha were by air.

• **FORECAST**

More immature groups and swarms will form along the southern coastal plains of Bushehr, Hormozgan, and Sistan-Baluchistan and interior areas of southern Fars and Kerman, Sistan-Baluchistan, and South Khorasan. As vegetation continues to dry out, these infestations will move east to the Indo-Pakistan summer breeding areas and the situation should improve by the end of the forecast period.

Pakistan

• **SITUATION**

During May, hopper groups and bands were present mainly in the interior of Baluchistan between Panjgur (2658N/6406E) and Quetta (3015N/6700E), on the coast near Pasni (2515N/6328E), in the central Indus Valley near Rohri (2739N/6857E), on the Punjab Plains, and in Khyber Pakhtunkhwa. An increasing number of immature adult groups and swarms formed and were maturing throughout the month in all areas. As conditions were drying out, groups and swarms moved east to the summer breeding areas in the deserts of Cholistan, Nara, and Tharparkar in Punjab and Sindh provinces. Control operations treated 76 466 ha of which 220 ha were by air.

• **FORECAST**

Additional adult groups and swarms will form in Baluchistan, Punjab, and Khyber Pakhtunkhwa and move to Cholistan, Nara and Tharparkar desert areas along the Indo-Pakistan border where they will mature and lay eggs with the onset of the monsoon rains. This will be supplemented by other spring-bred swarms arriving from Iran during June and East Africa from early July onwards. Locusts that arrive in advance of the rains are likely to settle in cropping areas or continue east to India.

India

• **SITUATION**

On 4 May, an immature swarm was reported between Jaisalmer and Jodhpur. Thereafter, immature adult groups and swarms from the west continued to arrive and spread throughout Rajasthan. As conditions were dry, swarms continued further east, reaching Ajmer (2627N/7438E) at mid-month, Madhya Pradesh on the 21st as far east as Indore (2243N/7551E). Winds from Cyclone Amphan helped to carry numerous swarms east of Jaipur (2654N/7548E) on the 25th to northern Madhya Pradesh as far east as Nagod (2434N/8035E) near Uttar Pradesh. A few groups reached northern Maharastra near Nagpur (2109N/7905E). Ground teams treated 53 604 ha.

• **FORECAST**

Successive waves of spring-bred swarms from Iran and Pakistan will arrive in Rajasthan throughout June with additional swarms coming from East Africa to Gujarat and Rajasthan from early July onwards. Locusts that arrive in advance of the monsoon rains are likely to settle in cropping areas or continue eastwards to Madhya Pradesh, Uttar Pradesh, Maharashtra, Chhattisgarh and perhaps as far east as Bihar and Odisha. The locusts in the central northern states will oscillate east and westwards before returning to Rajasthan with the onset of the monsoon in early July. Swarm mobility will decline as they mature and lay eggs in Rajasthan. Early breeding could produce hopper bands by the end of the forecast period.

Afghanistan

• **SITUATION**

On 1 May, there was a report of locusts near Lashkarga (3138N/6424E) in Nawi district of Helmand province.

• **FORECAST**

A few adult groups and perhaps small swarms may transit through the southern provinces as they move from spring breeding areas to the Indo-Pakistan border areas.

Announcements

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 bulletins. 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

Calm (green). Countries should report at least once/month and send RAMSES data with a brief interpretation.

Caution (yellow), threat (orange) and danger (red). During locust outbreaks, upsurges and plagues, RAMSES output files with a brief interpretation should be sent regularly every three days.

Bulletins. Affected countries are encouraged to prepare decadal and monthly bulletins summarizing the situation and share them with other countries.

Reporting. All information should be sent by e-mail to the FAO Desert Locust Information Service (eclo@fao.org and faodlislocust@gmail.com). Reports received by the first two days of the new month will be included in the FAO Desert Locust Bulletin; otherwise, they will not appear until the following month. Reports should be sent even if no locusts were found or if no surveys were conducted.

Desert Locust upsurge and response

On 17 January, the Director-General of FAO activated the L3 protocols, the highest emergency level in the United Nations system, in FAO to allow fast-tracking an effective response to the upsurge in the Horn of Africa. See www.fao.org/locusts for more details.

New eLocust3 tools

FAO has developed three new free tools for improving Desert Locust survey and control reporting: eLocust3g, eLocust3m, eLocust3w (http://www.fao.org/ag/locusts/en/activ/DLIS/eL3suite/index.html). Each tool allows the recording of basic survey and control data in the field while offline that is shared within the country.

Locust Hub

FAO in partnership with ESRI has developed a centralized hub for Desert Locust data and the latest progress on the emergency response to the Desert Locust upsurge (https://locust-hub-hqfao.hub.arcgis.com).

500th Desert Locust Bulletin

The current issue is the 500th bulletin produced by FAO's Desert Locust Information (DLIS) continuously every month since September 1978 (http://www.fao.org/ag/locusts/common/ecg/1579/en/DL1e.pdf).

Calendar

No activities are currently scheduled.

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

Moderate
- 21–50 mm

Heavy
- more than 50 mm

Summer rains and breeding areas
- July–September/October
- Sahel of West Africa, Sudan, western Eritrea; Indo-Pakistan border

Winter rains and breeding areas
- October–January/February
- Red Sea and Gulf of Aden coasts; northwest Mauritania, Western Sahara

Spring rains and breeding areas
- February–June/July
- Northwest Africa, Arabian Peninsula interior, Somali plateau, Iran/Pakistan border

Other reporting terms

Breeding
- The process of reproduction from copulation to fledging

Recession
- Period without widespread and heavy infestations by swarms

Remission
- Period of deep recession marked by the complete absence of gregarious populations

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

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

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

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, Lebanon, Palestine, Qatar, South Sudan, Syria, Tanzania, Turkey, UAE and Uganda

Eastern

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

Useful tools and resources

FAO Locust Watch. Information, maps, activities, publications, archives, FAQs, links
http://www.fao.org/ag/locusts

FAO/ESRI Locust Hub. Desert Locust maps and data download, and emergency response progress
https://locust-hub-hqfao.hub.arcgis.com

FAO Desert Locust regional commissions. Western Region (CLCPRO), Central Region (CRC), South-West Asia (SWAC)
http://www.fao.org/ag/locusts

IRI RFE. Rainfall estimates every day, decade and month
http://iridl.ldeo.columbia.edu/maproom/.Food_Security/.Locusts/index.html

IRI Greenness maps. Dynamic maps of green vegetation evolution every decade
http://iridl.ldeo.columbia.edu/maproom/Food_Security/Locusts/Regional/greenness.html

NASA WORLDVIEW. Satellite imagery in real time
https://worldview.earthdata.nasa.gov

Windy. Real time rainfall, winds and temperatures for locust migration
http://www.windy.com

eLocust3 suite. Digital tools for data collection in the field (mobile app, web form, GPS)
http://www.fao.org/ag/locusts/en/activ/DLIS/eL3suite/index.html

eLocust3 training videos. A set of 15 introductory training videos are available on YouTube
https://www.youtube.com/playlist?list=PLf7Fc-oGpFHEdv1jAPaF02TCfpcnYoFQT

RAMSESv4 training videos. A set of basic training videos are available on YouTube
https://www.youtube.com/playlist?list=PLf7Fc-oGpFHGyzXqE22j8-mPDhhGNq5So

RAMSESv4 and eLocust3. Installer, updates, videos, inventory and support
https://sites.google.com/site/rv4elocust3updates/home

FAOLocust Twitter. The very latest updates posted as tweets
http://www.twitter.com/faolocust

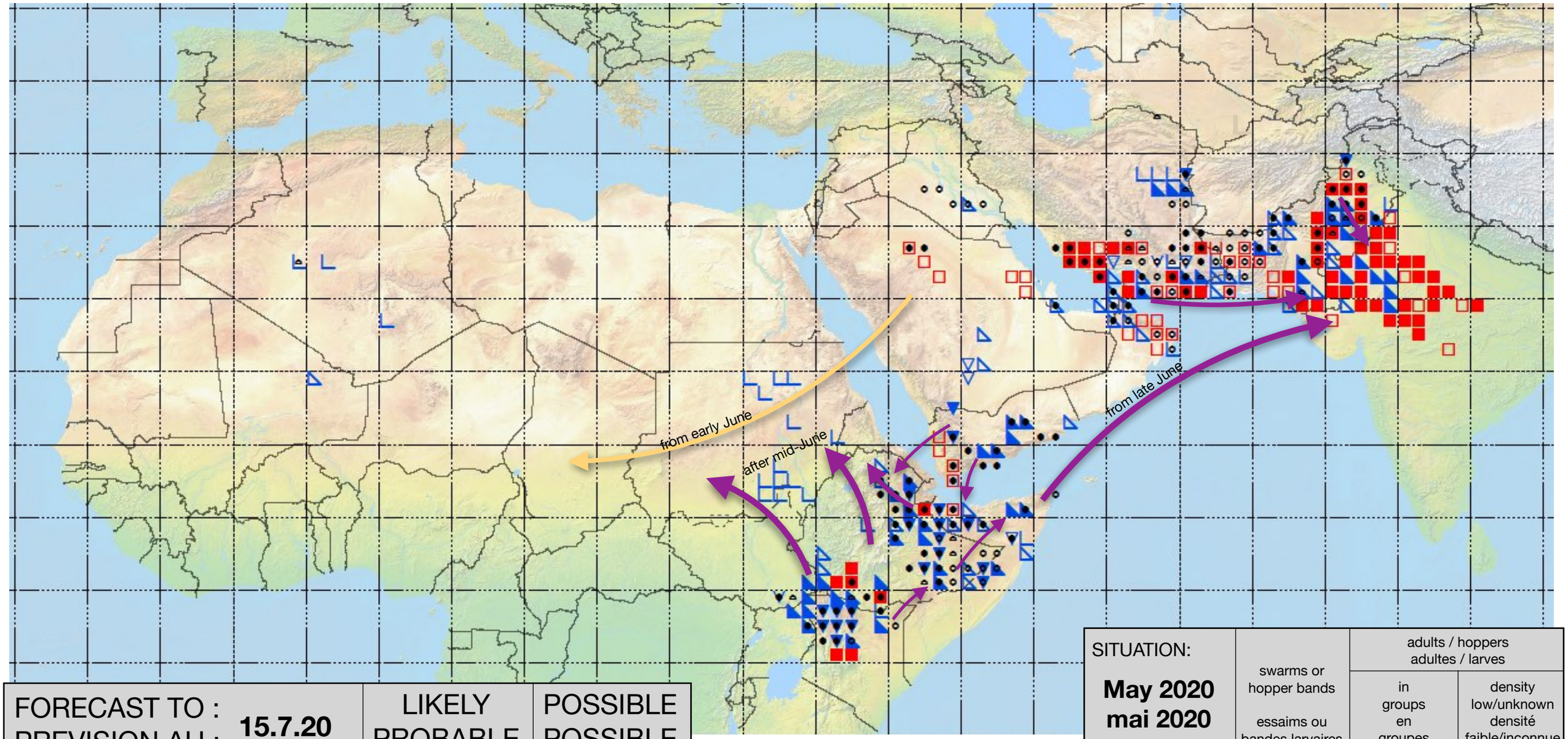
FAOLocust Facebook. Information exchange using social media
http://www.facebook.com/faolocust

FAOLocust Slideshare. Locust presentations and photos
http://www.slideshare.net/faolocust

eLERT. Online database of resources and technical specifications for locust emergencies
http://sites.google.com/site/elertsite

Desert Locust Summary
Criquet pèlerin – Situation résumée

500



FORECAST TO : PREVISION AU : **15.7.20**	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favourables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarms(s) essaim(s) limité(s)		
non swarming adults adults non essaimant		

SITUATION: **May 2020 mai 2020**	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 partially mature adults adultes matures ou partiellement matures	◣	◺	L
adults, maturity unknown adultes, maturité inconnue	▲	△	∧
egg laying or eggs pontes ou œufs	▼	▽	∨
hoppers larves	●	○	◡
hoppers & adults (combined example) larves et adultes (symboles combinés)	◘	◙	◡