

I hope these notes will lead others to watch them. They are the most easily studied of any *Hymenoptera*. So long as one sits quietly beside the burrow, they will carry on; though an incautious movement will frighten them away, they always return, and never, under any circumstances, need the most timorous observer fear them, for their sting is reserved for the prey alone.

The observations herein upon *Bembex* were published in the 'Reports of the Sleeping Sickness Commission of the Royal Society'; those upon *Sphigidæ* and *Pompilidæ* have appeared in sundry publications of the Entomological Society of London.

DISEASES OF STOCK IN LUMBWA DISTRICT

BY C. M. DOBBS

1. { *Rinderpest*, and } Lumbwa, *Kakatanet* or *Kipkaita*.—
 { *Gastro-enteritis*. }

I have bracketed both these diseases together, as, until a few days ago, I have been unable to discover that the Lumbwa differentiate in any way between the two. The disease is endemic in this district, carrying off both adult and young stock—mostly the latter. It appears to break out with particular violence towards the close of the dry weather, and disappears again in the epidemic form with the advent of the rains. The two names used—as far as I can discover, interchangeably—refer to different symptoms. *Kakatanet* is the Lumbwa for the gall-bladder, and this appears to swell up and become full of a blackish-coloured liquid. *Kipkaita* refers to the diarrhoea or dysentery from which the animal suffers. In the case of adult stock, death takes place on the fifth day from the time the animal gets sick. Dysentery appears on the third day. If the animal survives past the

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fifth day, it recovers. It refuses to eat, and lies down. Swells at the ears on the second day. Hair rough. The grass in the third stomach is dry. There is water in the *yotit* (fourth stomach), red, and mixed with grass. Small ulcers in fourth stomach and gall-bladder, but not in the mouth. Very fatal, and contagious. Is a fairly modern disease. Cows in calf abort. There is no cure known. They used to bleed them, but have given it up. The meat can be eaten with impunity; on the other hand, it has frequently been reported here that natives are suffering from *kipkaita*, and this has been ascribed to their eating diseased meat. As *kipkaita* really means dysentery, it may probably be due to other causes. Game are said not to get it. Sheep get it from contact with diseased stock. Goats are immune. The disease is said to have appeared once, very long ago, and then disappeared.

One old man in this district, when very closely questioned, admitted that a disease, a long time ago, before the arrival of the Europeans, had killed a lot of stock, buffaloes, and other game. It was the same as *kipkaita*, but much more violent. It wiped out whole herds in one day. There was dysentery; the gall-bladder swelled and was full of red water, and there was running from the eyes and nostrils. This disease he called *kimuguse*.

Another old man told me the following tale, which may be of interest in this connection:—

A very long time ago the Nandi went to fight, and on their way back, with much looted stock, they found a dead hippo on the road, covered with flies. These flies followed the cattle, and brought the disease into Nandi, from whence it spread elsewhere. This disease was also called *kakatanet*. It killed very many cattle. The sick animals did not waste away, but died after one day. The gall-bladder swelled. The stomach appeared healthy. Water came from the eyes and nose. There were sores on the lips, but not on the tongue. It was not like present day *kakatanet*. In the present day disease, the liquid from the gall-bladder goes back into the *yotit* (fourth stomach) and *akutanik* (small intestine?). This disease killed game.

From the above, it would seem a natural conclusion to draw that the present day so-called rinderpest is either a mild form of the old disease or an entirely different one.

2. *Anthrax*. Lumbwa, *Burasta*.—Breaks out at intervals in various parts of this district and then dies away for a time. The animal affected swells all over, and dies almost at once. The spleen (*nuakta*) swells up greatly. The blood does not coagulate. Goats and sheep get it from eating grass where cattle have died. Men get it from eating the flesh. It appears when the rain comes and the grass grows, as cattle eat the grass where other animals have died. Swelling on throat. No cure known. Carcass is burned.

3. *Black Quarter*. Lumbwa, *Kusto* (the 'shoulder'), or, more rarely, *Tertit* ('swelling').—Appears only occasionally, and does not kill much stock. Many recover. Attacks calves and adult stock alike. They generally die on the fifth day, and if they survive past the fifth day they recover. It attacks the left shoulder, which swells very much and prevents the animal walking. There is reddish water in the swelling. The flesh near the swelling is unhealthy-looking, and is thrown away. The rest is good, and is eaten. The insides appear healthy. It appears in both dry and wet seasons. There is no cure. Branding with hot irons is sometimes tried. Men do not get it, nor do sheep and goats. Cows in calf abort, and if this happens the cow recovers.

During the early part of 1914 a curious form of hysteria swept through this district. It was supposed to be a disease which attacked the limbs of the natives, which were said to swell up. It was called *kusto*, but I believe had nothing at all to do with the stock disease of the same name.

6. *East Coast Fever*. Lumbwa, *Chepuonik*.—Called from *puon*, the Lumbwa for the lung. Animal coughs. Lungs are congested and unhealthy-looking. Does not attack adult stock. Animal said to die, generally, on sixth day; if it passes the sixth day it recovers. Flesh is good to eat. Human beings do not contract disease. Swellings at ears and shoulders. No diarrhoea. Insides all healthy, except lungs. Not known how disease arises. No cure. If cow in calf throws its calf, it generally recovers; otherwise, dies.

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7. *Redwater*. Lumbwa, *Kuseret* (?).—Does not appear to be known at the present time at all. Said to have killed a few stock, long ago.

8. *Pleuro-pneumonia*.—As far as I can discover this is not known in this district. If it did appear it would almost certainly be called by same name as East Coast Fever (*chepuonik*).

9. *Contagious Abortion*.—Apparently not known.

10. *Trypanosomiasis*.—Apparently not known.

11. *Stiffness in Legs*. Lumbwa, *Kipkutungit* (*kiptundo* = 'knee').—This disease is said to attack cattle during the rains, and comes from drinking water near the salt-licks. Next day the animal's joints get weak and it cannot walk, but lies down. It only lasts a couple of days, and is not fatal. Bleeding the neck is resorted to as a cure.

12. *Kalmatiet*.—Attacks very many calves. It is a sort of skin disease that causes sores, and the hair falls off in patches. Is not fatal.

13. *Cheptigonet*.—Attacks cattle when they have been eating rich grass and salt. Also affects sheep and goats. Is not found at present. The gall-bladder is black and full of a green liquid.

14. *Chepkowet*.—In this disease the liver swells up. The gall-bladder bursts, and the animal dies. Is not found now. Originally killed a lot of stock. Animal died in from one to six days.

15. *Chepkiait*.—Attacked cattle, sheep, and goats. Is not found at present. The animal goes round and round in circles, and falls down and dies.

16. *Michinda*.—Attacks the glands below the ears of calves, which swell up. The place is cauterised with a hot iron. It occurs occasionally.

17. *Chesirun*.—Attacks goats, but not sheep. They come out in spots. Small ulcers in the stomach. It is not found at present, but used to kill many. *Chesirun* is Lumbwa for smallpox.

18. *Kingwaldo*. *Footrot*.—Attacks sheep and goats in wet weather. Kills many.

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LUMBWA NAMES FOR VARIOUS PARTS OF CATTLE

First stomach, <i>Moyet</i> .	Backbone, <i>Rotet</i> .
Second stomach, <i>Kipkon-yandet</i> .	Backbone near rump, <i>Sukulumdo</i> .
Third stomach, <i>Kipsegeret</i> .	Backbone near neck, <i>Kapioget</i> .
Fourth stomach, <i>Yotit</i> .	Back, <i>Letut</i> .
Water stomach, <i>Mbojet</i> .	Eye, <i>Konda</i> .
Small intestine, <i>Akutanit</i> .	Nose, <i>Serut</i> .
Large intestine, <i>Peot</i> .	Neck, <i>Katit</i> .
Gall-bladder, <i>Kakatanet</i> .	Shoulder, <i>Kusto</i> .
Lung, <i>Puon</i> .	Chest, <i>Takatet</i> .
Spleen, <i>Nuakta</i> .	Hind-leg, <i>Chatit</i> .
Liver, <i>Kowet</i> .	Hoof, <i>Siiyet</i> .
Kidneys, <i>Soromyet</i> .	Tracks of cattle, <i>Keliek</i> .
Heart, <i>Mugulildo</i> .	Knee, <i>Kutundo</i> .
Bladder, <i>Kipkuleito</i> .	Blood, <i>Korotik</i> .
Vagina, <i>Letut</i> .	Dung, <i>Ngataiat</i> .
Rectum, <i>Mustowet</i> .	Bone, <i>Kowet</i> .
Mouth, <i>Kutit</i> .	Ear, <i>Itit</i> .
Lip, <i>Irririot-kutit</i> .	Testicles, <i>Ketiot</i> .
Tail, <i>Saruriet</i> .	Scrotum, <i>Latet</i> .
Hair, <i>Putek</i> .	Scrotum (castrated), <i>Kaplatit</i> .
Hide, <i>Muito</i> .	Udder, <i>Murungut</i> .
Horn, <i>Kuinet</i> .	Teat, <i>Kinet</i> .
Tongue, <i>Ngelyepta</i> .	Hump, <i>Ukta</i> .
Teeth, <i>Kelek</i> .	Ribs, <i>Karasta</i> .

DESCRIPTION OF CATTLE

Cattle in general, <i>Teta</i> (pl. <i>Tuka</i>).	Cow whose calf has died, <i>Arak</i> .
Bull, <i>Kirkit</i> .	With ears cut so that portion hangs down, <i>Kimasas</i> .
Bullock, <i>Eito</i> .	With V-shaped cuts round ears, <i>Boroti</i> .
Cow that has calved, <i>Iyuoget</i> .	With lines burnt along body, <i>Kipserat</i> .
Heifer, <i>Roriat</i> .	Black, <i>Toiyai</i> , <i>Natoi</i> , or <i>Kimiso</i> .
Calf weaned (bull or heifer), <i>Kiptoiyot</i> .	White and black, <i>Keroi</i> .
Calf unweaned, <i>Moita</i> .	
Very old cow, <i>Osit</i> .	

DESCRIPTION OF CATTLE—*cont.*

Black with white on sides, <i>Kepe</i> .	Light grey, <i>Porus</i> .
Black with white head, <i>Lelkut</i> .	Hornless, <i>Karoi</i> .
White, <i>Sirue</i> or <i>Lelel</i> .	With erect horns, <i>Ngatimet</i> .
White with black head, <i>Toimet</i> .	With horns pointing in front,
White with red head, <i>Pirirmet</i> .	<i>Puruk</i> .
With white mark on forehead and black, <i>Kimmnaria</i> .	With crumpled horns, <i>Seta</i> or <i>Ngelech</i> .
White round eyes, <i>Komarkong</i> .	Horns pointing inwards to meet, <i>Kulunymet</i> .
Red brown, <i>Sitye</i> .	One eyed, <i>Makong</i> .
Reddish, <i>Mukye</i> .	Timid, <i>Ngosos</i> .
Black with red on legs and belly, <i>Seroi</i> .	Thin, <i>Tenden</i> .
Spotted, <i>Samo</i> .	Fat, <i>Sambururut</i> .

NOTES ON THE PREVALENCE OF INTESTINAL
PARASITES IN EAST AFRICA

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During the last quarter of 1914, a short series of microscopic examinations of the fæces of natives, complaining of intestinal troubles, admitted into or attending at the Native Hospital, Mombasa, were undertaken.

Of 100 examinations, 83 per cent. were positive, 17 per cent. negative. The percentage of the different ova present was as follows:—

	Per cent.
<i>Ankylostoma duodenale</i>	46
<i>Ascaris lumbricoides</i>	44
<i>Trichocephalus dispar</i>	43
<i>Tænia saginata</i>	29
<i>Schistosoma Mansoni</i>	5
<i>Oxyuris vermicularis</i>	2
<i>Strongyloides stercoralis</i>	3