BADGE COURSE MANUAL

OARSMAN INTEREST BADGE

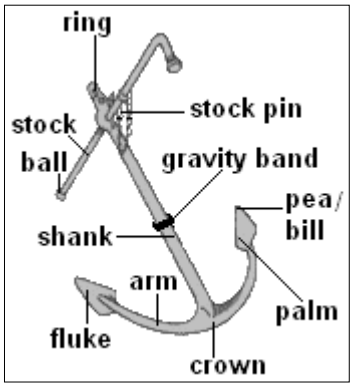
Name	
Troop	
Course Date	

ANCHORS AND ANCHORING

Admiralty Pattern Anchor (Fisherman's Anchor) :

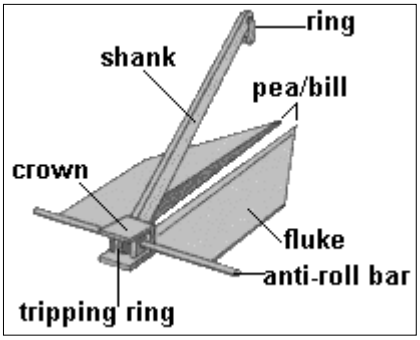
This anchor is found mostly on small craft and in places where holding power is of prime importance.

It consists of a shank, which carries two arms. On the arms are two flat broad parts called the flukes, which terminate in points called the pea or bill. Near the top of the shank and at right angles to the arms, a bar passes through the shank. This is the stock, which makes the anchor fall in such a position that the fluke must dig into the seabed. At approximately the middle of the stock, there is a raised metal ring or stop, which positions the stock centrally against the shank and a stock pin that goes through a hole in the stock on the other side of the shank, to lock the stock into position. With the pin removed, the stock may be slipped into a folded position for easy stowage. The top of the shank is terminated in a shackle or ring, to which the cable is attached. The gravity band is fitted at a point at which the anchor balances and a purchase tackle is attached to this point when the anchor is being hoisted inboard.



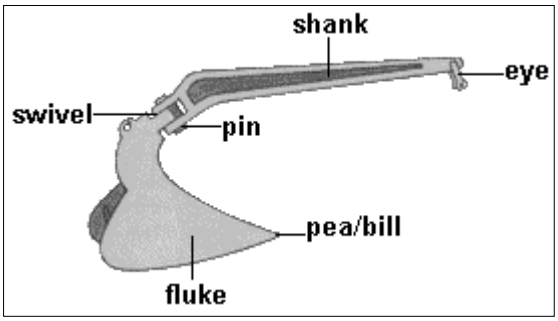
Danforth Anchor:

The Danforth is amongst the best of the small boat anchors and was developed by R.S. Danforth in 1939. It produces strong holding power, because of the thin large flukes and when under a heavy strain, the flukes bury themselves very deeply. Instead of a stock through the head of the anchor, the Danforth has a round rod through the crown, that prevents the anchor from rolling. One of its qualities, is that it can be adapted to large and small vessels.



C Q R Anchor (Plow Anchor) :

This is another popular design for small yachts and power craft. It comes from England and also has no stock. It has excellent holding characteristics and rarely fouls. It will dig in immediately after a 180-degree change in direction due to change in wind or tide directions on an anchored boat.



(See also Oarsman Scoutcraft Course Manual, pages 29 to 32)

The selection of the correct anchor or anchors for a particular boat depends on several factors – the load that the boat may place on the anchor – and the seabed. The load will also depend on external conditions such as the force of the wind on the hull above the waterline, the currents below the waterline and wake action at any given time.

A guide to go by for cruising sailboats is 1,5kg per meter of hull length for a working anchor and about twice that mass for a storm anchor. For temporary anchoring, a mass of 1kg/m will suffice. Motor boats and centreboard sailing boats could use smaller anchors. The above is only a rough guide and a check with the manufacturer's recommendations before trusting the holding power of any anchor is advised.

The holding power of an anchor also depends on the type of bottom. An anchor that develops a 1000kg of holding power in hard sand may only be able to hold 500kg in a soft bottom. You cannot always tell in advance, where you might anchor ship, so you must have ground tackle for the most difficult anchoring you may be faced with.

The horizontal force caused by a particular boat will determine anchor rode. To be effective, the rode must be long and strong enough. The length of the rode must also be so that the pull on the anchor will be horizontal. A scope of at least 7 : 1 – seven times as long as the vertical distance at high tide from the bow chock to the bottom. This is considered reasonably safe.

For example: If you are anchoring in 4m of water and the distance from your bow chock is 1m, you should pay out seven times the total of 5m, or 35m of anchor rode. Any scope of less than 5m would be considered unsafe in anything but very calm weather.

Small craft anchor cable is usually made of rope. Synthetic rope is preferred; manila had been the traditional rope used for this purpose. However, it is not as strong as synthetic rope, and does not have elastic properties of synthetics, especially nylon. Nylon is particularly effective to minimize shock loads caused by winds and tides. The synthetics dry quicker, are not prone to rot, and are more durable than manila.

A short chain between the end of the rope cable and the anchor shackle is effective in reducing shock as the chain tends to lie on the bottom, thus adding weight to the cable and maintaining the important horizontal pull. All components of the anchoring system should be joined with good quality galvanised shackles and the line should have an eye with a thimble where it meets the chain to reduce as much abrasion as possible. In constructing a proper anchor cable, limit the working load to one fifth of the rated breaking strain of the rope and one half of the proof test of the chain used. Therefore, a boat developing a load of 1000kg, should have a cable in which the rope is rated at 5000kg.

THE BEAUFORT WIND SCALE

Beaufort Number	Description	Wind speed		Observations
(Force)		KPH	Knots	
0	Calm	0	0	Tree leaves don't move; smoke rises vertically; sea is calm
1	Light Air	1 – 5	1 – 3	Tree leaves don't move; smoke drifts slowly; weathervane inactive; sea is slightly rippled
2	Slight Breeze	6 – 11	4 – 6	Tree leaves rustle; flags wave slightly; can feel wind on your face; small wavelets or scale waves
3	Gentle Breeze	12 – 19	7 – 10	Leaves and twigs move around; small flags extend; long unbreaking waves
4	Moderate Breeze	20 – 29	11 – 16	Small branches move; flags flap; raises dust and paper; waves with some whitecaps
5	Fresh Breeze	30 – 38	17 – 21	Small trees sway; flags flap and ripple; moderate waves with many whitecaps
6	Strong Breeze	39 – 50	22 – 27	Large branches sway; flags beat and pop; open wires (such as telegraph wires) begin to "whistle"; umbrellas are difficult to keep under control; larger waves with regular whitecaps
7	Moderate Gale	51 – 61	28 – 33	Whole trees sway; noticeably difficult to walk; large waves ("heaping sea")
8	Fresh Gale	62 – 74	34 – 40	Twigs break off trees; moderately high sea with blowing foam
9	Strong Gale	75 – 86	41 – 47	Branches break off trees; shingles blow from roofs; high crested waves
10	Whole Gale	87 – 101	48 – 55	Some trees blow down; damage to buildings; high churning white sea
11	Storm	102 – 120	56 – 63	Widespread damage to trees and buildings; these typically occur only at sea and rarely inland; mountainous waves
12	Hurricane	120 +	63 +	Extreme destruction; severe and extensive damage

DISEASES

TYPHOID; BILHARZIA; MALARIA

General:

In our town or city life, a Health Department sees to the cleanliness of the area, and watches closely for outbreaks of any diseases. If such occur, prompt remedial action is taken. When people are out in the open country however, such as is the case with Scouts in camp, there is no such public service to protect them, and due care must be excercised to prevent various types of sicknesses from developing and spreading.

The basic rules are simple enough :

1. Learn to know what causes various illnesses, and guard against the causes.

2. Attend to hygiene. Keep yourselves, as well as all your equipment and your camp site clean. Dirt will attract flies, and flies can carry a number of diseases. It is not uncommon for a fly to go straight to faecal matter in a latrine, or from animal dung, to a plate of food. Special attention must be paid in camp to the food store, kitchen and latrine.

3. Do not eat dirty food, nor drink dirty water or milk. All waters in rivers and streams, and even in springs, except in remote mountain areas, must be regarded with suspicion. People and animals habitually pollute our water courses, and it is quite likely that the pollution will contain disease germs. Pollution can also penetrate through some kinds of soil in wells and springs.

4. In selecting a camp site, avoid areas where BILHARZIA and / or MALARIA can be contracted (see the sections of these notes concerning the two diseases).

5. Any person who becomes ill in camp, should be isolated in a special tent or hut, and watched carefully. Clothing, towels, eating utensils, etc. of such a person must be kept separate and appropriately cleaned in boiling water, or by other suitable germ-killing means. Faecal matter and urine from a sick person must be well covered, and special attention given to their subsequent disposal. It is possible that the person may have come to camp with an infectious disease (chicken pox, influenza, measles, mumps, etc.) and this must not be allowed to spread

Further precautionary measures are given in the remainder of these notes, which are concerned principally with the three diseases most likely in camp if due precautions are not taken, namely : Typhoid (enteric) Fever (all areas), Bilharzia (certain areas), Malaria (certain areas).

A short note is also given on dysentery and enteritis.

MEDICAL AID

When there is any doubt about a person who becomes ill in camp, medical assistance must be sought immediately.

CAMP FOOD

Watching what you eat or drink when you camp or travel, can be as important as being vaccinated. Avoiding risky foods and water will also protect you from other illnesses, such as diarrhoea, cholera, dysentery and hepatitis A.

“Boil it, cook it, peel it forget it”

- If you drink water, buy it bottled, or boil it for one minute before you drink it. Bottled carbonated (fizzy) water is safer than non-carbonated water.
- Don’t add ice unless the ice is made from safe water. The same goes for ice-creams, frozen ices, etc.
- Eat foods that have been thoroughly cooked and are still hot and steaming.
- Avoid raw vegetables and fruits that cannot be peeled. Vegetables like lettuce are easily contaminated and are difficult to wash thoroughly.
- Peel your fruit and vegetables yourself, having washed your hands thoroughly. Don’t eat the peels.
- Avoid food and drink from street vendors. It may be cheaper, but it’s very likely to be contaminated.

.**TYPHOID**

Infection from typhoid is commonly acquired from polluted water, bottled waters, milk, ice cream and other foods in unsanitary conditions.

Typhoid fever is a disease, which mainly affects the intestines. It is also known as Enteric Fever, and sometimes as Abdominal Typhoid. It is caused by bacteria (Bacillus typhosus, more recently called Salmonella typhi), and must not be confused with typhus, a virus disease carried by the body louse.

Typhoid is a serious illness, and is accompanied by fever conditions (high temperature, flushed skin, etc.) and watery diarrhoea, often for several weeks; ulceration of the bowel may prove fatal. Typhoid germs (bacteria, which under the microscope are seen to be rod-shaped, hence the term "bacilli") are passed out of the body wither in stools (faecal matter) or the urine. The germs may reach food or water directly, or through the agency of flies, or may be dust or wind borne, or it may be spread by means of a "carrier" food handler.

Carriers:
A person who is ill with typhoid can obviously spread the disease. Such a person, after apparent recovery, can still be a convalescent carrier of the disease for a few weeks, or a chronic carrier for a much longer period. A person who has had the disease in a mild form, without noticing it, can also be a carrier. In any group of people there may be one or more carriers, and they, unknown to themselves or their companions, can be the cause of spreading typhoid.

Spread of Typhoid in camp:
From the above it can be realised that in a camp of apparently healthy persons, typhoid could be spread by a carrier, by drinking water which has been contaminated by some person further up stream, water from a contaminated well, by milk which has been handled by a carrier at the dairy, by flies which have flown from infected faecal matter or by other means.

Period of incubation:
The period of incubation of Typhoid (i.e. the time which elapses between a person becoming infected with the germs and when the disease becomes apparent) varies considerably, depending on the number of bacilli which are swallowed and on the health of the infected person. It may be several weeks before the illness occurs, which case it can be difficult to trace the source of infection.

Good hygiene prevents Typhoid:
To guard against enteric fever, ensure that all drinking water is sterilised by boiling or other means (filtration in itself is not sufficient), unless it comes from an unquestionable source. Ensure that all foods are clean (thorough cooking is a good means of sterilising), cleanly handled and are eaten from clean utensils (note how much attention is paid to the eating utensils at a good camp inspection). Doubtful milk should be boiled. Do not allow flies in or around the camp.

Keep the latrines well covered when not in actual use, and keep the contents covered with a layer of sand or ash. It is a good plan to keep a supply of sieved wood-ash from the camp kitchen or campfire in rainproof containers near the latrines and each person can dust some of this into the latrines immediately after use. It is not advisable to throw strong disinfectants, such as Jeyes Fluid or Dettol, into latrines at camp, as such disinfectants hinder the subsequent decomposition of the faecal matter by soil organisms.

However, to reduce smell and discourage flies, addition of bleaching powder (sometimes called chloride of lime) or chlorine (for the swimming pool) will be helpful. The effect of these powders depends on the chlorine they release, and is of short duration. Keep latrines well away from water supplies. After making use of a latrine, all persons should wash their hands (typhoid and other germs penetrate ordinary toilet paper) especially if they are on kitchen or cooking duties. Keep clothing, towels and dishcloths clean, and discourage people from borrowing towels from one another.

Dysentery and Enteritis:

It was stated above that Typhoid Fever causes diarrhoea. However, it must not necessarily be assumed that, because a patient has diarrhoea, he has Typhoid. Unhygienic conditions in camp can also cause other inflammatory conditions of the bowels (intestines), such as dysentery, enteritis, or some forms of colitis. The effects of these are similar in many respects – general illness accompanied by diarrhoea. In severe cases, blood may appear in the faeces. It is sometime difficult even for a doctor to distinguish readily between the various causes of diarrhoea, and scientific examination of the faeces is often necessary.

There are two types of dysentery, amoebic and bacillary. In the former, the cause is infection by small germs called amoebae, whereas infection in the latter case is by bacilli (rod-shaped bacteria).

In general, a "running-tummy" is often given a local name such as "gastric enteritis", "summer diarrhoea" or "apricot sickness" (appelkoossiekte). The last two names indicate that such an illness is more common in warm weather, when the causative germs are more prevalent, than when it is cold. Eating of clean apricots or other fruit does not lead to germ infection.

Severe cases of diarrhoea can indicate a serious illness, so make sure that mild causes are treated in good time, and call for medical advice if the treatment given does not give a ready response.

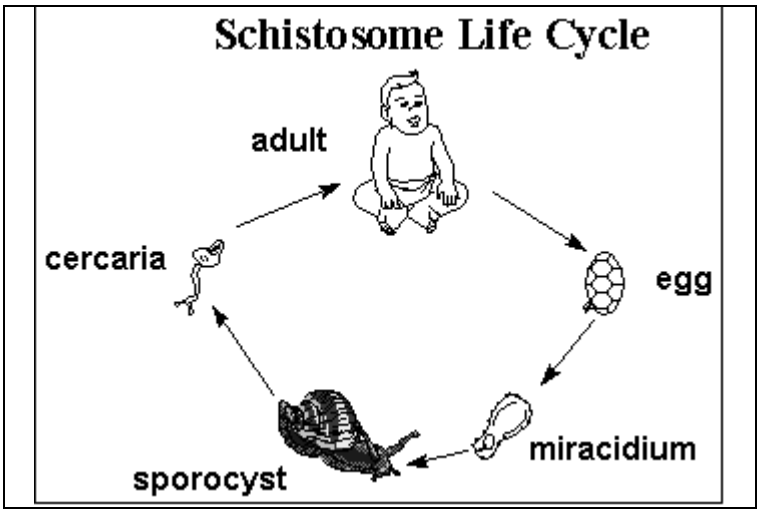
BILHARZIA (found in East-flowing rivers and water)

Bilharzia is a dangerous disease due to small, flat worms which move around in the bloodstream. The worms are called schistosomes, and from this, the disease is known as schistosomiasis.

A person suffering from bilharzia cannot pass the disease directly on to another person. An intermediate host is necessary – certain types of snail. This is in some respects similar to malaria, a disease in which a mosquito is the intermediate host which transmits the parasites from one person to another.

There are two types of bilharzia in Southern Africa, one that affects the bladder, and the other affects the lower intestines. Both types also affect the liver and other organs. Two different types of snail transmit the two kinds of bilharzia. There is also a third form of bilharzia in Japan and other countries of the Far East.

Life Cycle of Bilharzia Parasite



The parasitic bilharzia worms in man pair off, male and female. The female lays eggs that leave the body in the urine or faeces, depending on the type of bilharzia.

On reaching fresh water such as a stream (this can only be by direct discharge into the stream, or the eggs may be carried there some time later by rainwater), the eggs hatch out into tiny larvae called miracidia. These swim around seeking the right snail hosts. They die after about a day if the right snail is not found. In the snail, the miracidia move to the liver, where they develop and multiply. After about six weeks some of the parasites, in a new form known as cercariae, leave the snail and swim into the water seeking a human host. An infected snail can live for five to six years, during the whole of which time it can continue to liberate the parasitic cercariae.

If a cercaria does not find a human host within two days, it dies (compare the short life also of the miracidium as given above). If a cercaria does contact a person, it clings to the skin, and burrows its way in when the person leaves the water. It is not necessary to bathe in order to pick up the parasite – paddling in water, immersion of the hands in water or drinking some of the water can cause infection by cercariae. These burrow through the skin (in the case of drinking some water, they can burrow through the mucous membrane of the mouth, although those reaching the stomach are not likely to survive) into a vein, and move in the bloodstream. Near the liver, they develop into the schistosome worms. In the case of urinary bilharzia, the worms move to the bladder, where the females lay the eggs. The walls of the bladder are pierced, causing bleeding, and the eggs move into the bladder, to be passed out with the urine. Then urine will often be coloured with blood – hence the name “red water disease”. In the case of the intestinal bilharzia, the worms move to the wall of the lower intestine, and eggs pass out with the faeces. This will also often be coloured with blood.

(Blood in faeces can also be due to other causes, and does not necessarily signify intestinal bilharzia. For example, reference is made to such causes in the notes on Typhoid and Dysentery. Faeces may also be coloured red by certain vegetable dyes when eaten e.g. beetroot).

Types of snail

The common garden snails do not carry bilharzia, nor do snails or shellfish in saltwater. The snail concerned with the disease live along the edges of quiet dams, pools, streams or irrigation canals of fresh water. If a large kitchen sieve held by the handle is dragged along the reeds or grass, just at the edge of the water, it will collect a variety of pond life, amongst which snails may often be seen. If bilharzia infection is suspected, do not touch these snails, nor the water, with bare fingers. Drop the snails into boiling water or into methylated spirits before touching them, or handle them only with forceps.

If a common garden snail is held with the original point of the spiral uppermost, and with the opening towards the observer, it will be noticed that the opening is on the observer's right. The same applies to most seashells. In the case of the snails which carry bilharzia affecting the bladder (urinary bilharzia), the opening will be on the left. In examining snails in this way, one can be guided by saying "*Right's alright, but beware of Left*". Strangely enough, not all "left-handed" snails can transmit bilharzia, but really expert examination is necessary to distinguish between them. The snail that can carry bilharzia of the intestines is quite different. It is a small, flat snail, coiled somewhat like a watch spring. Neither of the above bilharzia carrying snails grow to much more than a centimetre in length or diameter.

Occurrence of snails:

In so far as the occurrence of the two types of bilharzia-carrying snails has been traced, it is known that they occur in Zimbabwe, Mozambique, much of Gauteng, and the Natal and Eastern Cape coastal strips. They do not occur in salt water (salt lagoons on the coast). It has been long said that they occur, as far as South Africa is concerned, only in rivers flowing North and those flowing East, but this is not completely accurate. A few bilharzia type snails have been found in the Vaal River, for example, between Parys and Potchefstroom.

Bilharzia snails do not inhabit fast flowing water. They do not go far from the bank of pools and dams, and the cercariae from infected snails cannot swim far, nor can they survive for more than a day or so. Therefore, currents in open stretches of water will not carry them very far. The middle of a large stretch of water is reasonably safe for bathing, if one goes there by boat, but even in such a case, it should first be checked that no snails are adhered to the boat.

Prevention of Bilharzia Infection

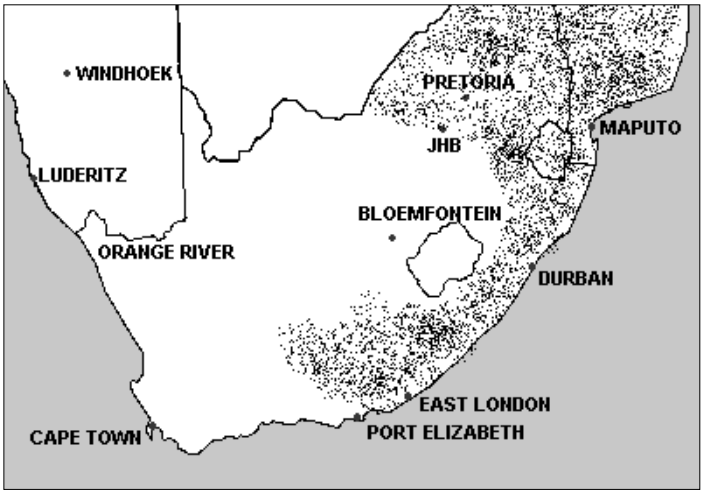
The Bilharzia cycle requires all four of the following:

- Infected persons
- Fresh water to hatch eggs voided by such persons
- Presence of the correct species of snail
- Human contact with the water after the parasites have emerged from the snails.

If you can eliminate one or more of the above, there is very little chance of becoming infected

Bilharzia Areas in Southern Africa

Shaded portions of the map indicate the main areas where bilharzia snails have been found. Anyone paddling, swimming or even washing in water infected with bilharzia runs a serious risk of contracting the disease.



The best prevention is to avoid all contact with water in suspicious areas. Even fishing can be dangerous, as the fisherman is liable to handle a fish on which some cercariae have temporarily lodged. Where water is suspect, it must be boiled or chlorinated before it can be used in any way. The cercariae from the snails can pass through simple sand filter or cloth strainer. As far as bilharzia is concerned, water can be used safely if it has been strained free of snails and then allowed to stand for at least 48 hours, after which period any cercariae will have died. Such treatment, however, does not prevent other possible diseases such as typhoid fever.

If a person paddles or bathes in water containing cercariae, shortly after emerging, he will note a distinct itching (swimmers' itch) if any of the parasites start burrowing into the skin. If contact with suspected water has been made, the skin should be dried as rapidly and completely as possible immediately afterwards. Application of alcohol, such as methylated spirits to all the skin that was wetted, both before and after drying, will be of assistance, as alcohol kills the cercariae. Liberal application of some of the insect repellents such as D.M.P. or Mylol to all parts of the body before bathing will also be quite effective.

Streams in remote mountain areas are unlikely to be contaminated with bilharzia, as no infected human hosts would be near to void eggs into the water, and snails are unlikely to be found there.

Destruction of snails

Complete elimination of bilharzia snails in order to control the disease is very difficult. Keeping of domestic ducks, which feed on the snails, can be helpful – the ducks are not affected.

Medical Aid

Unless camps are of very long duration, bilharzia infection contracted in camp will not be noticed until the camper returns home. Signs of blood in the urine (red water) or in the faeces should be reported immediately to a doctor.

MALARIA: **(found in Mpumalanga, KZN, Limpopo, Namibia)**

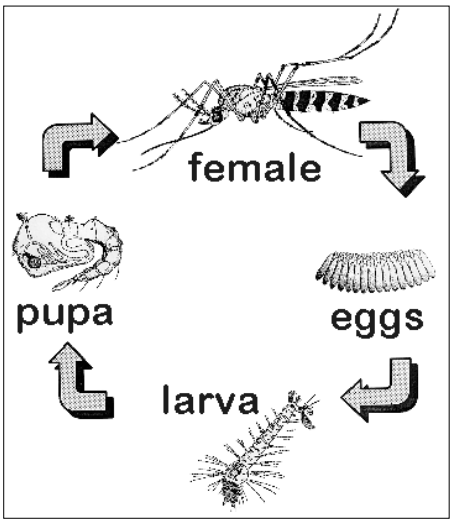
Malaria transmitted by mosquitoes

Malaria is a dangerous infection caused by parasites which enter the blood and feed on the blood cells. There are various kinds of malaria, and they all are transmitted from person to person by means of certain mosquitoes, known as Anopheles. One person cannot infect another person directly. It is essential that an Anopheles mosquito should feed on the blood of the person infected with malaria, and after some days, during which the malaria germs develop in the mosquito, should bite another person in order to infect him or her. When a mosquito feeds, it injects a little fluid into the blood in order to thin it somewhat before sucking it up, as well as for other reasons, and it is this fluid which will transmit the malaria germs to the person if the mosquito has previously become infected. Only the female Anopheles feeds on blood and hence the males do not transmit malaria.

Life cycle of Malaria Parasite

The malaria parasites have a distinct phase of development in the mosquito, and another entirely different phase in the blood of an infected person. One malaria parasite in a red blood cell of a human being develops into several, and these break out at regular intervals of one two or three days, depending on the type of malaria, and then invade further blood cells. As more and more cells are destroyed by the parasites, so the patient becomes less and less able to exert himself. Generally, the infected red blood cells burst at about the same time, liberating the parasites and associated toxins into the blood stream, and the patient then feels particularly ill. When the parasites have re-invaded further blood cells, the patient may feel somewhat better for a while. Malaria fever is accompanied by cold, hot and sweating stages in a patient, and these occur at regular intervals as given in the above paragraph. The regular alternations of high temperature followed by chill and shivering are characteristic of malaria.

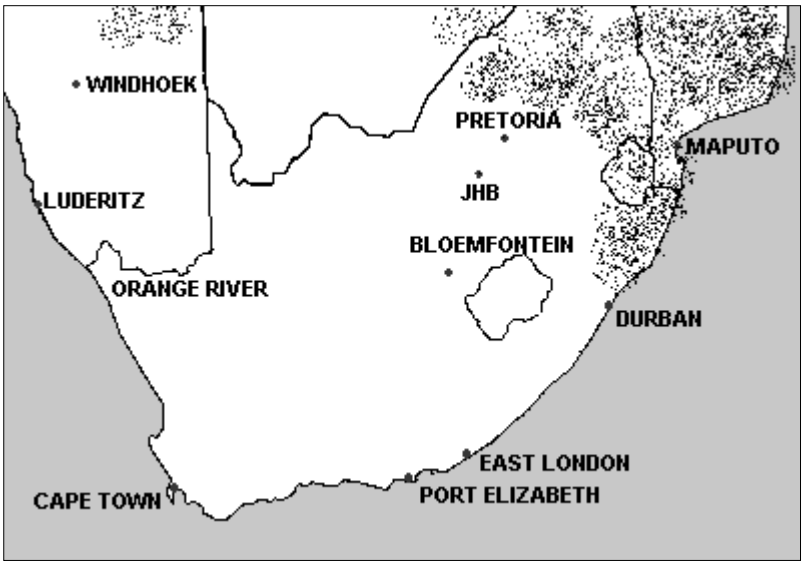
Mosquitoes



Mosquitoes lay their eggs on the surface of still water (ponds, small pools, water in tins or broken bottles, etc.). When the eggs hatch out, small larvae swim around in the water with a wriggling motion, and are often called “wrigglers”. They come frequently to the surface to breathe, and can be destroyed by pouring a thin film of oil or paraffin onto the water. This oily film prevents their breathing. If undisturbed, the larvae develop into pupae after a week or more. The pupae, after one or more days, stay on the surface and adult mosquitoes hatch from them, flying off as soon as their wings are dry. Oil on the water will also kill the pupae, as they too need to breathe.

The commonest mosquito in Southern Africa belongs to the Culicines, and does not transmit malaria. A Culex mosquito has plain unspotted wings, and when at rest, has the head, chest and body hunched up in a slight curve, almost parallel to the surface on which it rests. The malaria carrying Anopheles have spots on their wings, and are sometime called “dappled wing mosquitoes”. An Anopheles at rest, has head, chest and body in a straight line, usually at an angle of about 45° to the surface on which it rests.

Occurrence in Southern Africa



In southern Africa, the Anopheles occur in Zimbabwe, Limpopo and Mpumalanga, Mozambique and the coastal regions of KZN and the northern part of the Eastern Cape. Rigid control measures by Health Authorities have greatly reduced the number of mosquitoes, and so have reduced the spread of the disease, but it has not yet been wiped out.

Precautions in camp

Do not camp in a suspected area, especially in summer. In mid-winter there will be no mosquitoes in the colder areas, but they can persist in warm areas which occur at lower altitudes. If you must go to camp in a malarial area during warm weather, consult a doctor well beforehand about taking prophylactic tablets. When in camp, spray the inside of the tents and the camp surrounds with a good insecticide. Cover up as much bare skin as possible as evening approaches (long sleeves, long trousers, thick socks, etc.). Use mosquito repellents such as Mylol on bare or thinly covered skin, and sleep under mosquito netting.

Medical Aid

Unless a camp is a long one (more than three weeks), a person becoming infected at camp will not show signs of the disease until he reaches home. The typical symptoms are fever and high temperature, alternating with a feeling of chill, should demand immediate attention. Take no chance with malaria, as it is a very serious disease.

Sterilisation of water

Water can be sterilised by boiling it for several minutes. Boiling also removes all dissolved air, and if the water is to be used for drinking purposes, it will have a flat taste. To improve the taste of the water, it, can be shaken vigorously or be well stirred to re-dissolve some air. Water can also be sterilised in the cold by means of chlorine or iodine, making it safe to drink. For chlorinating, a teaspoonful of Jik can be shaken up in a bottle of water. When settled, a few drops of the clear solution can be stirred into the water to be sterilised (this should first be strained or filtered if necessary). After allowing the water to stand for at least 30 minutes, if it still tastes of chlorine, it will be sterile. Experience will show how much chlorine test solution can be obtained for this purpose. Other forms of chlorine steriliser are also available, e.g. sodium hypochlorite and lithium hypochlorite. Tincture of iodine, which used to be a popular treatment for small wounds, is also a good steriliser. It can be readily obtained, and one good way to carry it for hikes or small camps is in a small phial or “iodine pencil”. Two or three drops of tincture of iodine stirred into a litre of water will make the water safe for drinking after half-an-hours standing. This procedure can be very useful on a hike. If not overdosed, the iodine will leave no after-taste in the water.

ROPE WORK – SPLICES

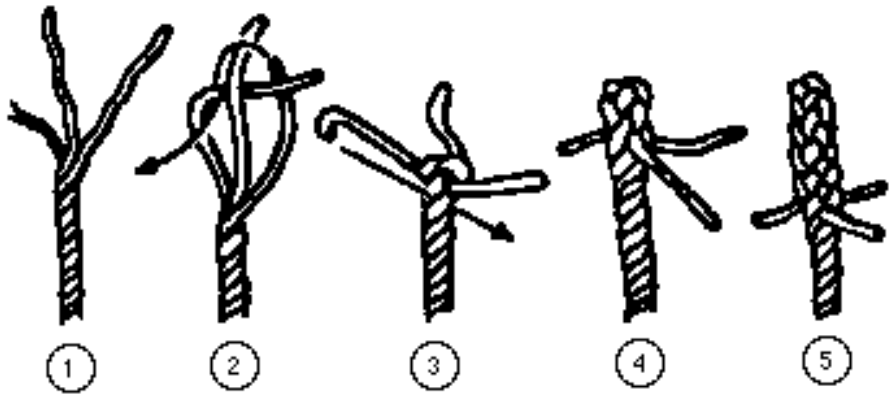
Splices are used to join any two parts of rope together permanently. A good splice has up to 95 per cent of the rope's strength, while a knot's efficiency varies from only 45 to 60 per cent of the rope's strength.

Before beginning to splice, you need a couple of tools - a sharp knife and a marlinspike. The marlinspike is the tool included in some pen-knives that most Scouts think is used for taking stones out of horses' hooves. The marlinspike is used to help you in opening the lay of the rope at the point where the strand is to be introduced. If you haven't a marlinspike handy, a 15cm nail will do the job.

The most important step in splicing is the start. Marry the strands correctly and the remaining steps follow easily. To properly prepare a rope for splicing, unlay the end adequately and whip each strand with a temporary whipping. Four tucks will hold any splice providing that they are full strands (i.e. not tapered off). Tapering off is done after the fourth tuck and is performed by reducing each of the strands by one-third with a knife; tuck again with the thinner strands and then reduce the strands by another third; and finally by tucking and trimming off close.

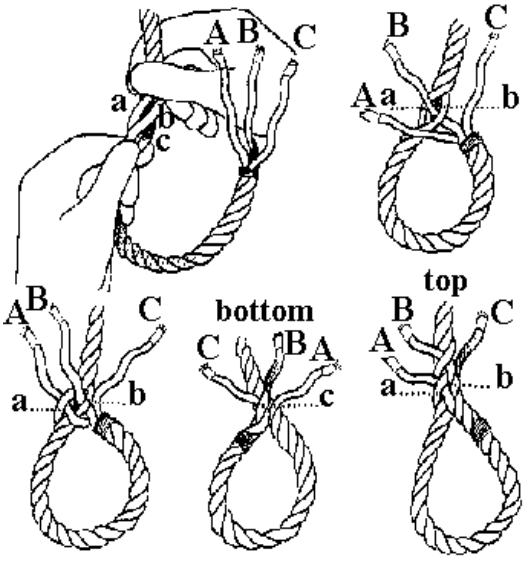
Backsplice:

The backsplice at the end of a three-stranded rope makes a neat and permanent finish. It also thickens the end, possibly creating a problem with block and tackle, but which may be to an advantage acting as a stopper. Commence the splice by making a crown knot, then continuing over and under for at least three tucks with each strand.

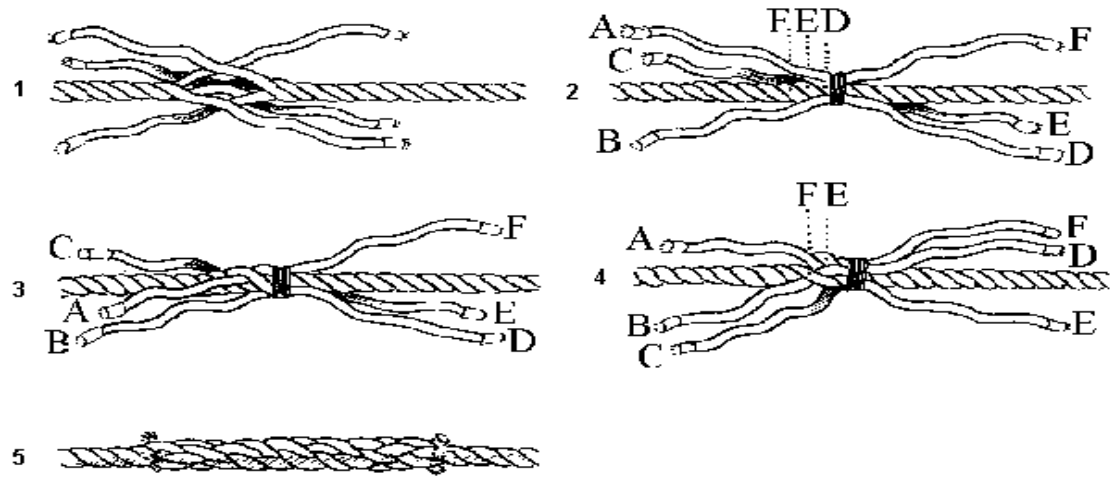


Eyesplice:

The eye splice is used to make a permanent loop or eye in the end of a three-stranded rope. Often a metal thimble is worked into the eye and then bound with twine. Carefully follow the illustrations, pulling each tuck up tight.



Shortsplice:
This splice is used to join two ropes of three strands each. Like the backsplice, it thickens the rope and may prevent it from passing through a block and tackle. When making this splice, ensure that each stage of the splice is pulled up tight before proceeding with the next

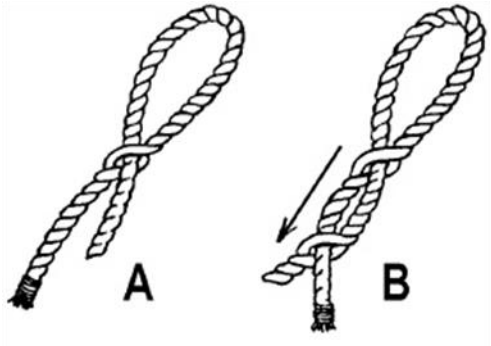


Docker's Splice.

The Docker's Splice is sometimes called the Marline Eye Splice or the Tucked Eye Splice. It is the easiest of all to form. It is a quick method of making a temporary eye in a rope at any point and is often used on ridge tents to hold the dolly of the main guylines. In most splices the lay of the rope is opened and the tucks are made with the rope strands. In the Docker's Splice the whole rope is used.

Open the lay at the chosen point in the rope and tuck the whole of the running end through the raised strand to make an eye of the required size (A). Now open the lay of the standing part of the rope immediately below the first tuck and pull the running end through until both tucks lock together (B).

As in all splices, remember to work against (or across) the lay. After the second tuck make sure that the running end is of reasonable length so that there is no danger of it pulling out.



EXAMPLE OF A LOG

SEA SCOUT BASE – SANDVLEI

Telephone 021-709-2030 P.O. Box 280, Muizenberg 7950

NAME		GROUP	

Course	Hours Required	Course	Hours Required
Oarsman Scoutcraft	**3**	**Sailing Scoutcraft**	**3**
Oarsman Interest	**10**	**Helmsman Interest**	**10**

BOATING LOG

DATE	BOAT TYPE	REMARKS (Weather conditions, crew, other details)	Time Logged	Confirmed by (sign)

Hours to be confirmed by Troop Scouter/Authorised Person