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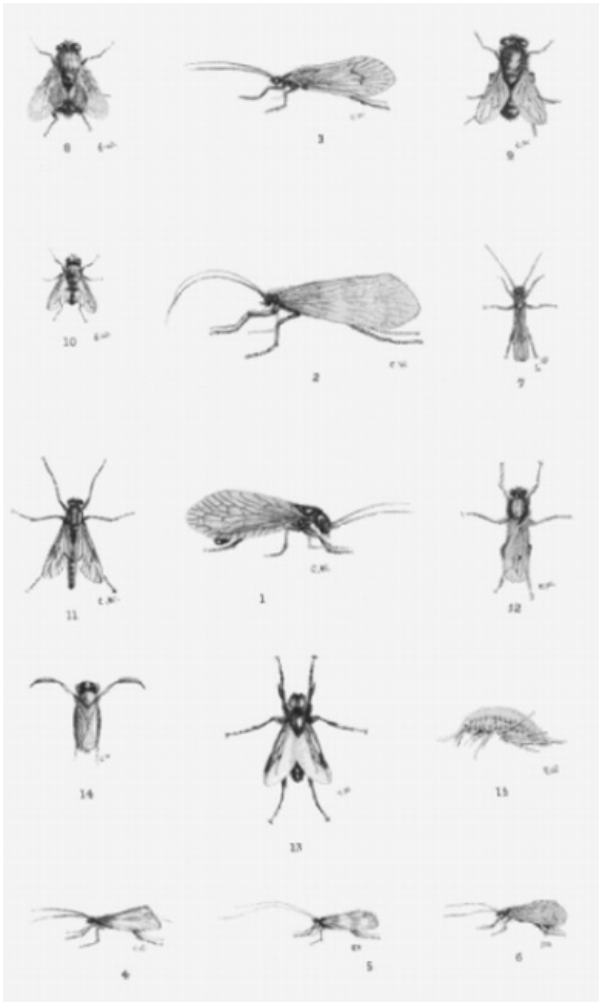
OLD FLIES IN NEW DRESSES

PLATE I

NATURAL FLIES



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1. Alder-fly. *Sialis lutaria*, Linn. (Slightly enlarged.)
2. Caperer. *Halesus radiatus*, McLach.
3. Red Sedge. *Anabolia nervosa*, Steph. (Slightly enlarged.)
4. Welshman's Button. *Sericostoma collare*, Pict.
5. Cinnamon-fly. *Mystacides longicornis*, Linn.
6. Grannom. *Brachycentrus subnubilus*, Curt.
7. Willow-fly. *Leuctra geniculata*, Steph.
8. Blue-bottle. *Calliphora erythrocephala*, Mg.
9. Green-bottle. *Lucilia cæsar*, Linn.
10. House-fly. *Musca corvina*, Fab.
11. Oak-fly. *Leptis scolopacea*, Linn.
12. Cow-dung-fly. *Scatophaga stercoraria*, Linn.
13. Hawthorn-fly. *Bibio marci*, Linn.
14. *Corixa geoffroyi.*
15. Fresh-water Shrimp. *Gammarus pulex.*

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OLD FLIES IN NEW DRESSES

HOW TO DRESS DRY FLIES WITH THE WINGS IN THE NATURAL POSITION AND SOME NEW WET FLIES

BY

CHARLES EDWARD WALKER

ILLUSTRATED BY THE AUTHOR AND EDWARD WILSON

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[Pg iv]

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[Pg v]

PREFACE

In the first part of this little work I do not wish my reader to suppose that I claim to be the first who has dealt with any particular imitation in the manner he will find that I have dealt with it. In the case of particular flies, others have frequently observed that the imitations generally used were inaccurate. The imitation of the Alder-fly has perhaps been most treated in this way, but it is not alone. One instance, however, of inaccuracies in imitations of natural flies having been observed, will I hope not be trespassing too much upon my reader's patience.

Blaine, in his *Encyclopædia of Rural Sports* published in 1840, says when speaking of the Cow-dung fly:—"By some extraordinary mistake Bowlker describes this fly as having upright wings;

and as many of the London fly-makers dress their flies by his directions, we need not wonder that they are often bought with their wings unnaturally glaring outwards."

What I have tried to do, is to work out and bring down to a definite rule the position in which the wings of the imitations of the various kinds of flies should be placed.

My reader therefore must not hope in this first part to meet with many imitations of creatures that have not been imitated before; but if he finds that the manner in which the flies are dealt with as a whole is any step forward, be it ever so small, I shall be satisfied in having attained the object at which I aim.

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My reader may be surprised at the order in which I have arranged the various flies; but it was necessary, or at any rate very much more convenient, to arrange them in the way I have, as entomological accuracy of arrangement in a work on fishing must not be the first consideration of the author. That the wings of the Alder and the Caddis flies are in practically the same position in relation to their bodies, was my reason for placing the descriptions of these flies next each other, and this instance is sufficient to suggest to those of my readers who are entomologists, reasons for the other cases in which I have not placed the descriptions of the various flies in their correct sequence.

A disclaimer must also be my preface to the second part of my work, for I know that I am far from being the first in thinking that the wet fly of the fisherman is not taken by the fish for the natural fly it is supposed to represent.

Here my hope is that my reader will find a definite theory which is sufficiently plausible to interest him, at least for the moment.

I have to acknowledge the kind assistance of Dr. G. A. Buckmaster, Lecturer on Physiology at St. George's Hospital, of Mr. Ernest E. Austen, of the British Museum (Natural History), and of several other gentlemen.

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I must also thank the Editor of *Land and Water* for allowing me to republish an article in the first part of my book, and the Editor of *The Field* for a similar permission with regard to certain articles which appear in the second part.

Mrs. J. R. Richardson, of Kingston-on-Thames, has also given me some hints as to improvements in the dressing of some of the flies described.

CHARLES WALKER.

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DRY FLIES

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CHAPTER I

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Introductory

Though it would not be true to say that hitherto writers on fly-dressing have shown any lack of power of observation, still it is unfortunately true that their energy seems, strangely enough, to have stopped short at observing the natural fly, and has not been sufficient to carry them on to making even passable imitations, except of Ephemeridæ. With the exception of this family of flies, no one could possibly recognise the artificial through knowing the natural fly which it is supposed to represent. Yet the fisherman who knows the natural fly well by sight will go on using these imitations year after year unquestioningly; and though he himself would certainly not have known, unless he had been told, what natural fly the imitation he is using is meant to represent, he expects the trout to do so at once.

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There has been much discussion recently as to whether trout have the power of discriminating between different colours, but no one has ever cast a doubt on their power of discriminating between different shapes; yet in most of these imitations it is not the colour that is wrong, but the shape. The wings of a fly undoubtedly play a most important part in forming the outline, and consequently the general appearance of the fly. Therefore, if they are not put in the natural position, the whole contour of the imitation must be entirely different from that of the natural fly.

It seems, however, judging by the standard works on the subject, that there is practically but one recognised position for the wings of the artificial fly, as the difference between the position of divided wings and wings dressed flat together is, after all, but slight. No one seems yet to have realised the fact that the wings of a May-fly do not lie in the same relative position to the body as do those of the Blue-bottle, whilst in the case of the Alder there is a further marked distinction from both.

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The wings, in the different families of flies upon which trout and grayling feed, lie when at rest in three distinct positions in relation to their bodies.

In the Ephemeridæ they lie in planes approaching the vertical, slightly diverging from each other towards their extremities. Fig. 1 gives a sketch of one of the Ephemeridæ, and Fig. 2 a transverse section through the line α β of Fig. 1. These drawings show the relation of the wings to the body. All flies have so far been treated by writers on fly-dressing as though their wings were in this position.

In the Caddis-flies (*Trichoptera*) and the Alder-fly (*Sialis lutaria*) the wings lie on each side of the body, meeting at their upper edges in front, gradually diverging towards their lower edges and posterior extremities.

Fig. 3 gives a sketch of an Alder, and Fig. 4 a transverse section through the fly, showing the position of the wings.

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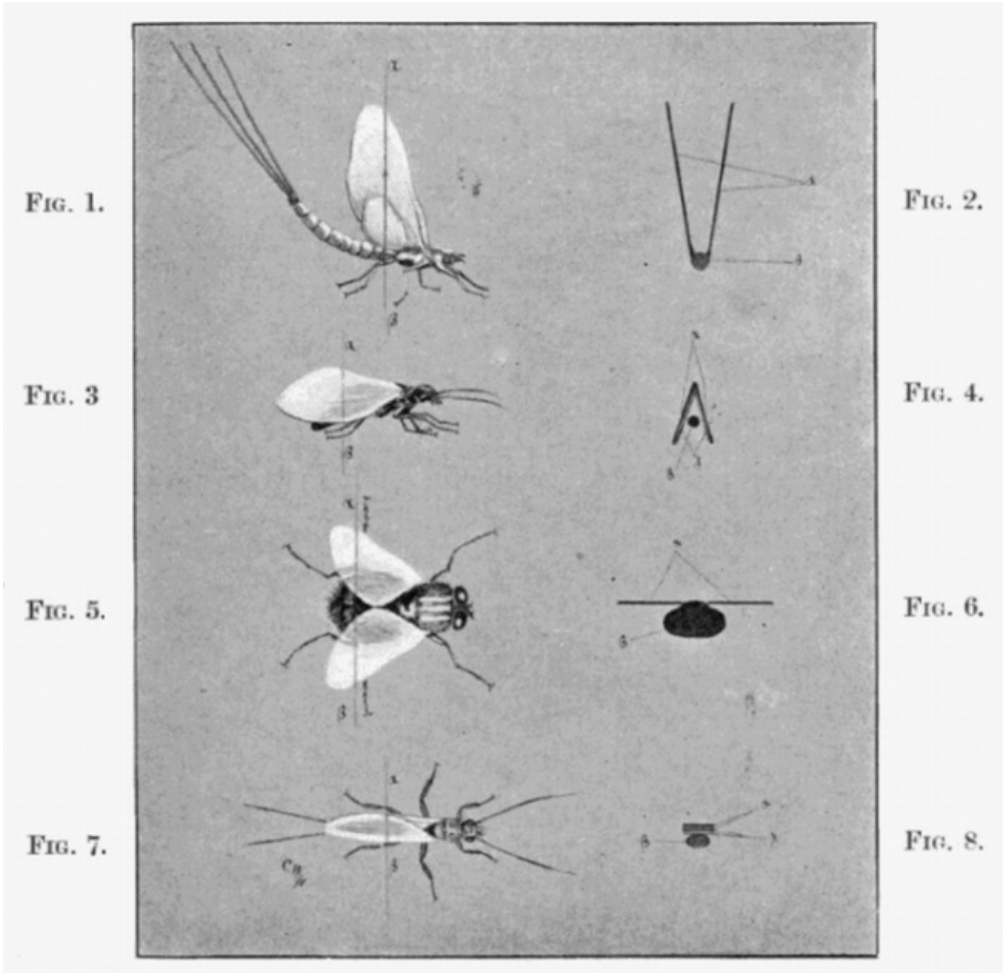
In the Diptera (Blue-bottle, Cow-dung, &c.), and Perlidæ (Stone-fly, Yellow Sally, &c.), the wings lie in a horizontal plane. In some Diptera the wings diverge from each other towards their extremities, as in the Blue-bottle, shown in Figs. 5 and 6. In some other Diptera and in the Perlidæ, the wings lie over each other, as shown in Figs. 7 and 8,. It will be seen that the wings in both these cases lie in a horizontal plane.

In Figs. 2, 4, 6 and 8 β represents the section of the body, α and γ the section of the wings.

I wish it to be thoroughly understood that these positions are the positions of the wings of the natural fly *when at rest*.

Many flies when they fall on the water buzz round in circles periodically, apparently with the object of disengaging themselves from the surface. Between these efforts, however, their wings generally assume the normal position of rest. The only way to imitate the fly when it is buzzing is [Pg 7] by dressing it without wings, and with extra hackle; and this is, after all, but a poor imitation. In most cases it is better to imitate the wings at rest; and if this is done accurately, it will present to [Pg 8] the trout an accurate imitation of the natural fly as it appears to him when not trying to raise itself from the water.



Sketches and diagrams showing the relative positions of the wings to the body in the various natural flies. Figs. 2, 4, 6 and 8 show sections through αβ in Figs. 1, 3, 5 and 7. In Figs. 2, 4, 6 and 8 α = anterior wings; β = body; γ = posterior wings.

I have on many occasions watched the behaviour of an Alder when it has fallen on the water. At first it moves its wings rapidly, but soon stops, to begin again, however, when it has rested. This is repeated time after time, but after each succeeding struggle, the interval of rest becomes longer. In many cases, however, the fly hardly struggles at all.

In observing many other flies which had fallen on the water, I have seen the same sequence of events occur, though some flies struggle to raise themselves from the surface much more than others, as in the case of the Blue-bottle.

The first trial that I made of a fly dressed with the wings in the natural position was with an Alder. To make this trial complete, I purchased some Alders, dressed according to the most approved patterns, from three well-known firms of tackle makers. When I got to the water-side the trout were rising freely, and the banks were literally swarming with Alders. I saw a trout take [Pg 9] one which had fallen on the water, so it was evident that the Alder was the fly to use. I began with the flies I had purchased, and cast over a trout which was rising under a tree. He would not look at it, and the same happened with the flies of the other two makers when I cast over two other trout. I then tried one of my own, and got a fish at once. He did not take it in a half-hearted manner, but was hooked right in the back of the tongue. I then tried the other flies again without success. When, however, I went back to my own fly I hooked the first fish I cast over.

Imitations of other flies made with the wings in the natural position have served me as well as did my imitation of the Alder, though I was not inclined to try the ordinary patterns so freely on every occasion as I was at the first trial. I have, however, several times caught a rising fish on one of my imitations when he had refused the ordinary imitation not two minutes before.

My reader will of course think that these experiments, being carried out by myself, are hardly a conclusive proof of my theory, as, however impartial I might wish and believe myself to be, I must be naturally biased in my own favour. I quite realise that this is a natural doubt, but fortunately others besides myself have tried my flies. [Pg 10]

Mr. Herbert Ash put them to an even more severe test than I did myself, and has kindly permitted me to give his experience. I give an extract from a letter written by him and published in *Land and Water* on October 23rd, 1897, as I think it is a very pertinent testimonial to the practical success of my theory.

"I put up a cast of three Alders, two being the shop-tied patterns which I usually used, and the third, which I put on as a first dropper, being Mr. Walker's. I landed eight trout in about an hour and a half, and each of those fish took Mr. Walker's fly."

"Now, although I used three flies, I was fishing up stream and dry, my object being to test the new mode of tying the Alder, and I found that while the fish rose boldly at the first dropper, not one took any notice of the other flies." [Pg 11]

Colonel Walker also had much greater success with flies dressed with the wings in the natural position than with any others. In fact, for several consecutive days, on different occasions he caught no fish except with my flies, though he did not use them more than flies dressed in the ordinary way.

Several other fishermen have told me that their experiments with my imitations have produced similar results.

Mr. H. H. Brown, of the Piscatorial Society, after I had read a paper to that Society on my theory of the right way to dress trout flies, described a very interesting experience which he had one day when out fishing, and which bears directly on this theory. While out fishing some time ago, he rested on a bridge over the river in which he was fishing. There were a great number of Alders about, and on observing some fish in the water some little distance below the bridge, he caught some Alders, pinched their heads slightly in order to either kill them outright or at any rate stop them struggling, and threw them on the water. He was in such a position that he could observe each fly individually until it either floated past or was taken by the fish. What he observed was, that when in killing the fly he had disturbed the natural position of the wings, not one of the fish would look at it; while, if the wings remained in the normal position of rest, the fly was always taken. This occurred time after time, and not once was the fly with the wings in an unnatural position taken, but, on the other hand, not a single fly with its wings in the natural position of rest was allowed to pass. He also observed that once or twice the fish came up to look at a fly whose wings had been disarranged, but on getting close to it they always drew back. [Pg 12]

This is, I think, an extremely strong argument in favour of my theory.

I do not propose in this work to deal with Ephemeridæ, as the wings in the imitations now sold are in the natural position. The families I do propose dealing with are the Sialidæ, Trichoptera, Diptera, and Perlidæ, as no one has yet, to my knowledge, described the position in which the wings of the imitations of these flies should be put. [Pg 13]

CHAPTER II [Pg 14]

Colour Perception in Fish

(*Rewritten from "Land and Water," November 6, 1897*)

Many interesting problems constantly come before the fisherman, but certainly one of the most interesting which has recently attracted his attention is Sir Herbert Maxwell's theory on the power of fish to discriminate between various colours.

His theory is, that though fish can undoubtedly discriminate between different shades of light and dark, they cannot distinguish one colour from another. The only conclusion that can be drawn from this theory is the conclusion at which Sir Herbert Maxwell has apparently arrived. This is, that if the same relations of light and shade be maintained in the artificial which exist in the natural fly, the colour of the imitation is quite immaterial. [Pg 15]

The facts upon which he based this theory were (1) that during the May-fly season he used several artificial May-flies, some of which were coloured scarlet, some bright blue, and some coloured to imitate the natural fly, all of them being similarly graduated with regard to the shade of their various component parts; (2) that he caught trout with all these flies, no particular one of them being decidedly more successful than the others.

This experience of his no doubt would at first strike one as being very strongly in favour of his theory; but on going deeply into the matter, its bearing on the fish's powers of vision is not so great as it appears.

To begin with, we must consider whether, judging from experience in the past, trout have been

known to rise at things on the water which were not only unlike in colour to any flies on the water, but also unlike them in shape and gradations of shade. This we know they will sometimes do. I have on several occasions seen a trout which refused a fairly accurate imitation of the flies which were on the water rise at and take below the surface a swan's feather. There are also many other much more extraordinary but similar cases on record. Thus, the fact that these trout took an abnormally coloured fly is not a conclusive proof that they mistook it for the natural fly, particularly as this experiment was made during the May-fly season, when the trout sometimes appear to be quite mad, but are at any rate always much less shy than at any other time of the year. [Pg 16]

The experiment, too, was made upon a private water, and I think that there is great doubt that the same result would have occurred had it been made upon a well-fished water where the trout were more shy and better educated.

We must then consider whether, in what we know of the natural history of fish, there are any facts which point towards the probability of their being able to discriminate between different colours. Here we find that there are cases in which in certain species the males are more brilliantly coloured than the females, either at the spawning season or always. This is probably a process in evolution which tends to make them more attractive to the female. We also know that fish sometimes assume a colour similar to their surroundings. This colour is, no doubt, evolved for their protection from enemies, and surely a very large proportion of these enemies are other and larger fish. Many of the larvæ of water insects and other creatures upon which fish feed are also coloured according to their surroundings, in order to facilitate their concealment. These facts would naturally lead us to come to a conclusion opposed to that of Sir Herbert Maxwell, as the probabilities all point towards the power of fish to discern various colours. [Pg 17]

Another very important point is the structure of the fish's eye in comparison with that of man, who we know has the power of discriminating between colours. This power is, in the human eye, probably situated in the layer of rods and cones of the retina. Had the fish's retina not contained this layer, as is stated by Sir Herbert Maxwell, there would certainly have been most excellent grounds for supposing that his theory was true; but this layer *is* contained in the fish's eye, though it is not the same as in man. If the fish's eye did not contain it, fish would have been totally blind. [Pg 18]

How far this difference in the retina of the fish bears on its sense of colour is, at present, a moot point, though I believe researches are being made in this direction. At present, our knowledge is too limited with regard to it for any definite statement to be made. The probability is, that fish have the power of distinguishing colour from colour. A probability, however, is not a certainty, though one is more inclined towards it than towards an improbability.

Even should Sir Herbert Maxwell's theory prove true, in spite of probabilities to the contrary, I do not see that we should have progressed very much further with regard to facilities in imitating the natural fly. We know that the relative values of light and shade in various colours contiguous to each other, is not actually the same as the impression conveyed to our eyes. We have an example of this always with us in the photograph, where red and blue, in relation to each other, certainly do not produce the same effects on the plate as they do on the eye; and as we have no accurate knowledge as to the effect of contiguous colours upon a normally monochromatic eye, we could hardly be certain of producing an accurate monochromatic imitation of a multi-coloured object, which would deceive that eye. [Pg 19]

The case of a colour-blind human being is certainly not a normal case, so the shade value of the various colours to this eye could hardly be taken as a safe standard.

Even if we assumed that all these difficulties had been surmounted, and that the exact relative shade values to this monochromatic eye of every colour were estimated, I think that there can be no doubt that it would be easier to imitate the colours, with the various shades in these colours, than to calculate out the relative shade values of the different colours, in one particular colour, and that the result of the former and easier, would be much more likely to be accurate than the latter and more difficult attempt. [Pg 20]

Besides this, possibly, as the eyes of some families of fish are more highly developed than those of others, the relative shade values of colour might be different to the different families, so that if we eliminate colours from our lures, we must have different shading for different fish.

Having considered all these things carefully, I have come to the conclusion that it will be much safer and easier to keep on using colours in our imitations, even if we do present these imitations to a monochromatic eye.

Since writing the above article, I have been able to collect some further information with regard to the probable power of the trout's eye to discriminate between colours.

These researches, though I have not yet had time to carry them as far as I had hoped, have led me to believe more firmly than ever that I am right in recommending the use of colours in our imitation flies. I have prepared some sections of the retina of the trout, and examined them carefully in comparison with the retinæ of several other fish. A short account of what is known at present of colour-vision is, I think, advisable to make my meaning clear to those of my readers [Pg 21]

who may not be sufficiently well versed in this particular subject.

The sensation of an individual colour is produced by rays of light of a particular wave-length falling upon the retina. A sensation of “white” is produced by rays containing all the wave-lengths which are able to affect it. When, on looking at an object, we find that neither a colour nor white sensation is produced, this sensation is called “black.”

The white sensation may be mixed with the sensation of any colour of the spectrum, as also may the sensation of black, and when these two are mixed they produce a sensation of “grey.” Some colours of the spectrum are probably produced by a mixture of various wave-lengths of different primary colours, and many colours in nature do not exist in the spectrum.

The word “tone” expresses variations of wave-lengths within a named colour, and “brightness” is used to indicate the intensity of the sensation produced upon the retina. [Pg 22]

The enormous difficulty of working out into a monochrome the shade-values of a collection of colours, with several tones and shades of brightness in each of the variously coloured parts of the object we wish to imitate, can be imagined on considering these facts only; but there are more facts which lead me to believe that to do this is not only difficult, but impossible.

Two theories have been propounded to explain the sensation of colour produced upon the retina.

The Young-Helmholtz theory teaches that there are three primary sensations—red, green, and violet. Other colours are a mixture of these sensations; white is produced when all three sensations are excited together, and black is an absence of sensation.

Hering’s theory is that there are six primary sensations arranged in three pairs—white and black, red and green, and yellow and blue. He assumes the existence of three visual substances which undergo metabolic changes when subjected to the action of light. These are the red-green, the yellow-blue, and the white-black substances. The white-black substance is influenced by all the rays of the spectrum, while the red-green and yellow-blue substances are differently influenced by rays of different wave-lengths. When all the rays together fall upon the retina, no metabolism takes place in the red-green and yellow-blue substances, but only the white-black substance is affected. Thus the white-black substance is the most active. [Pg 23]

Any discussion as to the relative value of these theories would in this work be out of place and unnecessary.

The ordinary form of colour-blindness in human beings is the inability to discriminate between red and green. This shows that the visual power of these people is dichromatic and not trichromatic, as their power is limited to two colours, or pairs of colours, and does not extend to three.

The individuals who belong to this class of the colour-blind may be divided into two sub-classes—those who are red-blind and those who are green-blind. [Pg 24]

Those who are red-blind do not see the red end of the spectrum, and the blue-green appears grey, though they have distinct colour vision of the parts of the spectrum on either side of the blue-green. In matching red with a green, they put a bright red with a dark green.

On the other hand, those who are green-blind see the red end of the spectrum, while the green appears to them as grey. In matching a red with a green they put a dark red with a bright green.

No absolutely undoubted cases of blue-yellow blindness have been recorded, and only one of absolute colour-blindness; but one case is not sufficient to go upon.

According to the Young-Helmholtz theory, a case in which only shades of black and white were visible would be impossible, as it would not be shades of black and white which would be seen, but shades of either red, green or blue. According to Hering’s theory, of course, absolute colour-blindness would be possible.

In the normal human eye, only the central parts of the retina are sensitive to colour, the peripheral parts are practically colour-blind. Anæmia of the retina, which may be produced by pressure on the eye-ball, will render the retina, first colour-blind and then insensitive to light. To me it appears that colours in relation to each other assume a grey tone, and the sensation of black and white disappears last. [Pg 25]

The great difference which I have been able to observe between the human retina and the retina of the trout is, that while the human retina contains a layer of rods and cones, the retina of the trout only contains cones, or if it does contain rods, contains very few, as I have not found any as yet. There exists also at the back of the retina of the trout a “tapetum,” which extends over almost the whole of its posterior surface. This does not exist in the human eye, but is found in the eyes of some of the vertebrates. It consists of a layer of “guanin” crystals, and, presenting as it does a metallic appearance, and having great power of reflecting light, probably plays an important part in the visual power of the trout, particularly, I should think, in a dim light. [Pg 26]

The fact that the rods are absent from the trout’s retina does not bear the important significance that one would imagine on first realising it. The fovea centralis of the human retina is the seat of most acute vision, and in the fovea centralis there are no rods. The cones in the retina of the trout are very closely arranged, so that they are practically in contact with each other, and their outer limbs are rather longer and finer than in the case of man. This layer of cones extends to the

periphery of the retina, and the cones are just as closely arranged as far as they extend. These facts should lead us to believe that the vision of the trout is probably extremely acute, in fact, as we find in the retina of the trout, no material difference from the *fovea centralis* of the human retina, we have no reason to suppose that the visual powers of the *whole* of the retina of the trout, should differ in any way from the visual powers possessed by the *fovea centralis*, the seat of most acute vision both as to colour and light in the human retina. The retinæ of other fishes which I have examined (none of them were *Salmonidæ*) contained only cones; but these cones were some distance from each other. [Pg 27]

The layer of pigment epithelium which is present in the human eye, is present also in that of the trout. It occupies the same position between the layer of rods and cones, or cones only, and the choroid. As in the human eye, it adheres sometimes to the choroid and sometimes to the retina, when the retina is removed, though perhaps it most often adheres to the retina.

My space is too limited to enter into any of the theories as to the possibility of the pigment cells playing a part in colour vision. It is quite sufficient to state that they undoubtedly do play some part in our sense of sight, and that they are contained in the eye of the trout.

The retina of a colour-blind person does not show any organic difference from the normal eye, so we cannot say to what cause colour-blindness is due; but so far as our knowledge goes, there is no reason to suppose that the trout is normally colour-blind. [Pg 28]

As Michael Foster so ably put it, “No man can tell what are the sensations of his fellow-man,” still less I think can man say what are the sensations of a trout. All we can do with regard to this question of colour vision, is to find out all the facts we can relating to it, and working on comparisons, arrive, not at conclusions, but at probabilities.

The only thing of which I am sure is that we shall find it safe and comparatively easy to imitate flies in colours, but to make a monochromatic imitation of one, which would accurately represent it to a normally monochromatic eye (about which we know nothing), in a medium of which we know very little, is practically impossible.

CHAPTER III [Pg 29]

How to Dress Flies with the Wings in the Natural Position

The generally accepted method of dressing a trout fly is to put on the wings first. This is perhaps the best plan when making an imitation of one of the Ephemeridæ, but it is impossible to put the body on after the wings, if the wings are placed in the natural position in the case of any fly not belonging to this family. The hackle must also be put on before the wings, so it will be seen that putting on the wings is the last operation in dressing one of these imitations.

I have never myself used a vice in fly-dressing, and think that it is a great advantage to be able to dress a fly without using one. Any one who can dress flies well without a vice will be able to dress them even better with a vice, and will be able to dress flies at all sorts of odd times and places where a vice could not be used; while he who has never dressed flies without using one, will find that the imitations he produces are anything but neat, when he first tries to make them without his vice. [Pg 30]

Alder and Caddis Flies.

These flies, as I have already explained, have their wings in the position shown in Figs. 3 and 4.

Give a few turns of the tying silk round the shank of the hook, beginning near the eye and leaving enough room to put on the hackle and wings. Carry it down the shank in the Alder, going just beyond the bend, and in the Caddis-flies generally stopping well short of it, so that the body may be perfectly straight.

The material for the body and the tinsel, if used, should now be tied in. I find it best to tie the tinsel in first, not straight out from the hook, but diagonally, as, if put on in this way it lies much smoother in the first turn than if tied in quite straight. [Pg 31]

If the body is to be made of wool or hair, the tying silk should be waxed again at the part nearest the hook for about two or three inches, and the material spun on it.

When I began fly-dressing I found this spinning on of the “dubbing” a great stumbling-block. In all the books I have read the directions on this point are simply, “Spin the ‘dubbing’ on the tying silk,” and I had not the least idea how this should be done. As others who wish to make their own flies may also find this a difficulty, I will try to explain the method which I have found the easiest.

If Berlin wool is used, a piece should be broken off and the strands separated from each other. The strands should then be laid together and pulled into short pieces until the whole is in one mass. This should then be teazed up with the nails of the thumbs and first fingers until it is of an even consistency. A small portion of this should then be taken to make the body of each fly. This should be teazed up again, and made to taper gradually to a point at one end, and applied to the [Pg 32]

tying silk with the taper end towards the hook, as shown in Fig. 9. All “dubbing” should be teazed up and applied in this way.

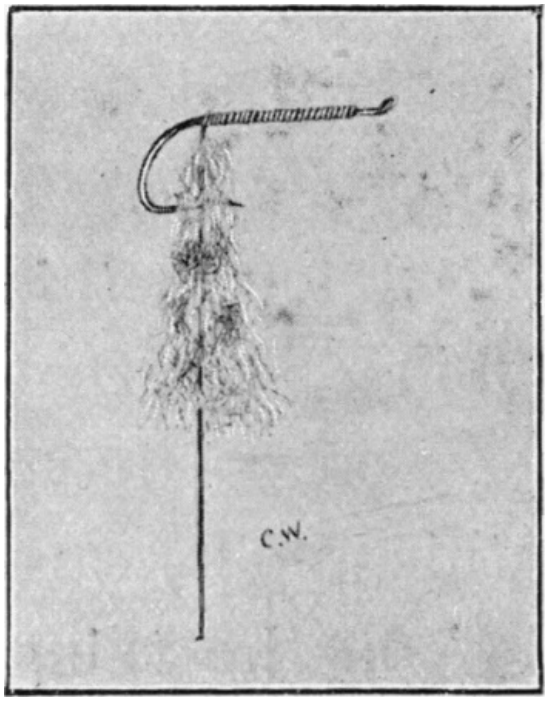


Fig. 9.

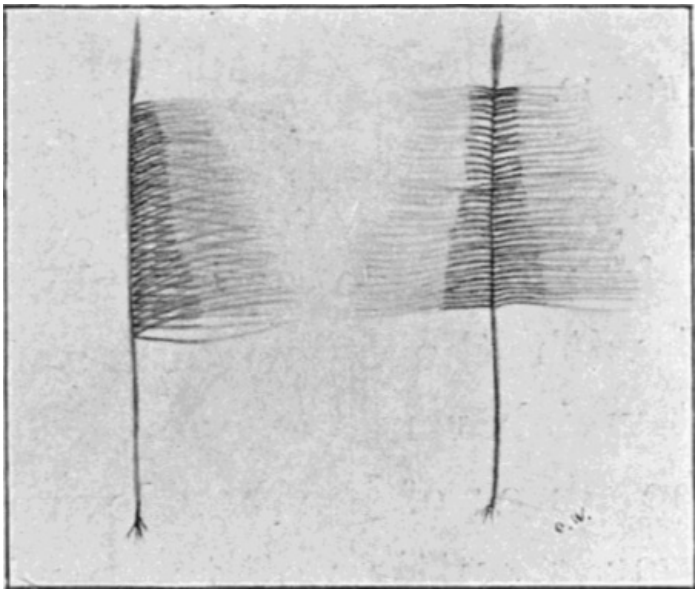


Fig. 11(left) and Fig. 10 (right).

The wool must now be taken between the thumb and first finger of the right hand, and twisted round the tying silk by rubbing the thumb and finger together. The “dubbing” is now spun on, and should cover from about a quarter to three-quarters of an inch of the tying silk, according to the size of the hook. It should be wound round the shank to the head, leaving a small portion of the shank bare at the head for the hackle and wings. The tinsel or wire is then wound round in a spiral to the head, tied, and the surplus cut off. The hackle should now be applied. The longest fibres of the hackle must be of the same length as the hook. Clear off the flue with the nails of the thumb and first finger, and then holding the tip of the hackle in the left draw down its fibres by [Pg 33] pressing the hackle between the thumb and first finger of the right hand and drawing them downwards. The hackle will now appear as shown in Fig. 10. Take the tip of the hackle thus prepared between the nails of the thumb and first finger of the left hand, and the butt of the hackle in the hackle pliers, so that the back or dull surface of the hackle faces towards you. Now, holding the hackle pliers in the palm of the right hand with the third and fourth fingers, put the first and second fingers behind the hackle, and by stroking them down with the thumb make the fibres of the hackle which point upwards point down in the same direction as the lower row. The [Pg 34] hackle will now appear as shown in Fig. 11.

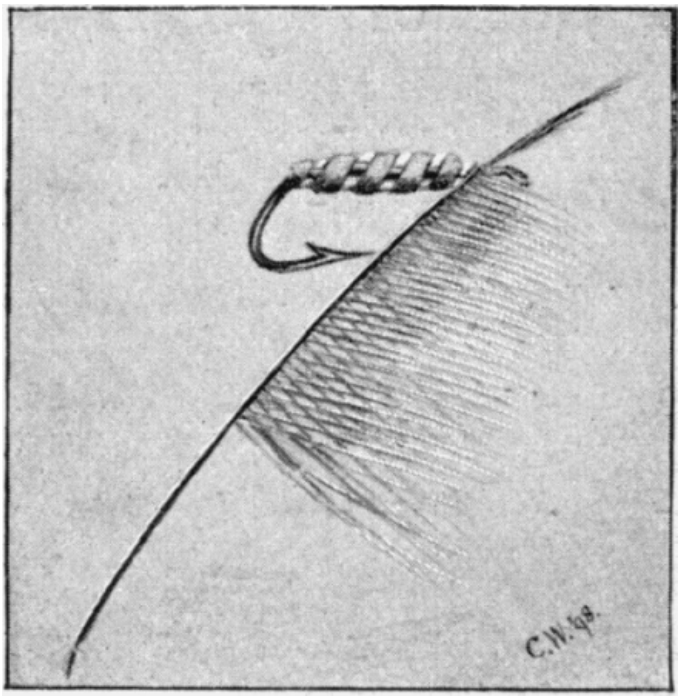


Fig. 12.

Tie the point of the hackle in at the head as in Fig. 12, cut off projecting point, and wind it on with the pliers in close turns towards the head. Three or four turns will be found ample as a rule. Tie in the end with the tying silk and cut off the part which remains over. Now draw down the fibres of the hackle which project upwards, cutting off those which will not stay down. The fly should now appear as shown in Fig. 13.

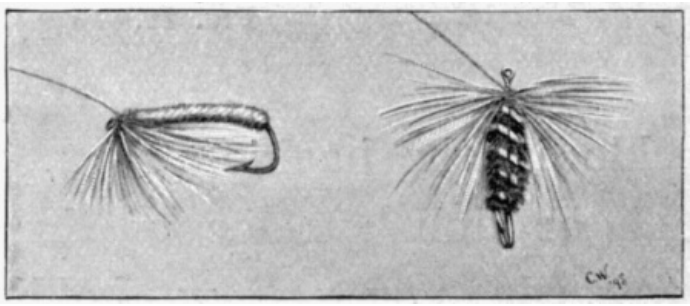


Fig. 13 (left) and Fig. 14 (right).

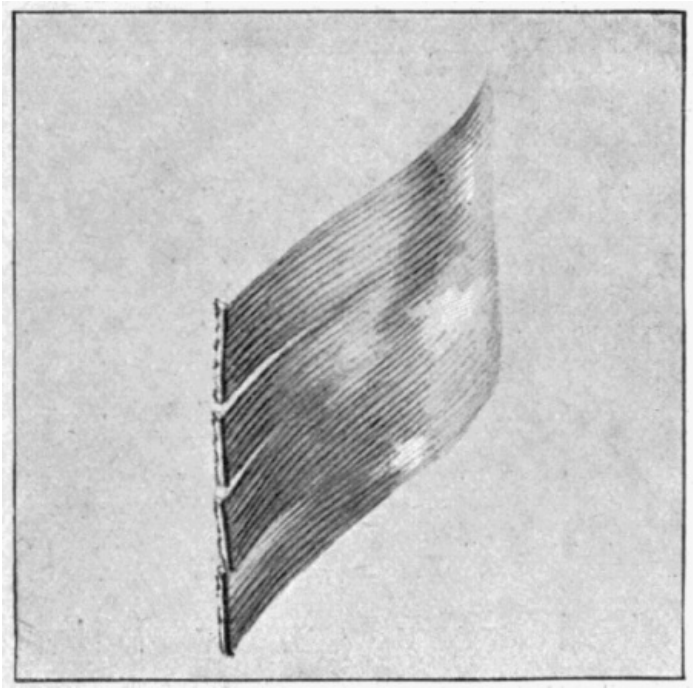


Fig. 15.

The wings should be taken from corresponding quill feathers from opposite wings of the bird. [Pg 35]
These are split up the middle with scissors, and a piece from the side with the longest fibres

taken. The piece of quill attached must now be cut at regular intervals, and each piece between these cuts will serve as a wing (see Fig. 15). Take two of these pieces, one from each feather, and place them together, with their concave surfaces toward each other. Place them, one on each side of the hook, with their lower margins a trifle lower than the body of the fly, tie them in at the head, cut off the projecting part with the quill, and finish off the head. The head should now be [Pg 36] varnished, taking care to clear the eye of the hook, and the fly will appear as shown in the illustrations of imitation Alder and Caddis-flies.

There is another way of preparing wings which is much better, as it makes the ends of the wings round, though it is more difficult. This was first shown me by Mrs. Richardson of Kingston-on-Thames.

The feather is taken and the lower part of the fibres stripped off, till a part is come to suitable for making a wing. A portion of fibres sufficient for making a wing is then separated from the fibres above and bent carefully downwards. If the fibres are stroked very gently between the thumb and first finger, they will arrange themselves, so that their ends present a rounded edge instead of a point. This portion of fibres is then grasped firmly between the thumb and first finger near the quill, and detached therefrom by pulling it smartly downwards. The other wing is prepared in a similar manner from a feather of the opposite wing of the bird.

Diptera and Perlidæ. [Pg 37]

In imitations of Diptera and Perlidæ the body and hackle are put on in the same way, except that the hackle should be allowed to project sideways as well as downwards; for as the wings are horizontal in these flies, the fibres which project sideways will not interfere with the position of the wings, as they would do in the Alder and Caddis flies. The body and hackle, when put on, should therefore appear as shown in Fig. 14.

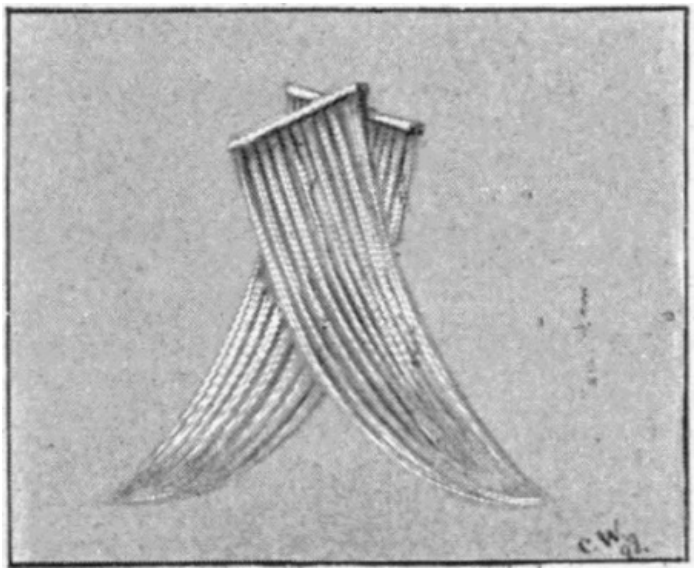


Fig. 16.

The wings of these flies are perhaps the most difficult of any to put on. To put on wings which diverge from each other as in the Blue-bottle, two portions of the quill feathers from opposite sides, prepared as described for the Alder and Caddis flies, should be laid upon each other, as shown in Fig. 16. The hook should then be taken in the left hand, and held by the bend between the first and second fingers, with the head pointing towards the right. The wings are then laid flat [Pg 38] on the body with the right hand, and held there firmly with the left thumb. The wings are now tied in, the quill and part of the fibres attached cut off close, and the head finished off. The illustration of the imitation Blue-bottle, etc., shows its appearance when finished.

Those Diptera whose wings lie, when at rest, one over the other (as in the case of the Cow-dung), my reader will see that I have represented in my imitations, with their wings spread to a certain extent. This is because I have seen that, in the natural fly, when it falls on the water, the wings are most often in this position.

In Perlidæ, whose wings lie one over the other, the wings should be put in the position they occupy in the natural fly, instead of across each other, and the fly will appear when finished like the illustration of the imitation Yellow-Sally.

The dressings which I have found most successful will be described with each fly. It will be noticed that I have put tinsel on many of the flies which have been dressed hitherto without. My [Pg 39] reason for using it so freely is because this is the only way to produce a peculiar effect which is seen in certain flies when viewed from under the surface of the water; and as this is how they must appear to the trout, it is best to imitate this effect as nearly as possible.

The bodies of many flies are covered with short hairs. When these flies fall on the water, an air bubble adheres to these hairs, and, seen from below the surface, produce a brilliant metallic effect, with the colour of the body showing through in places. Ribbing the body of the imitation

with tinsel reproduces this effect accurately.

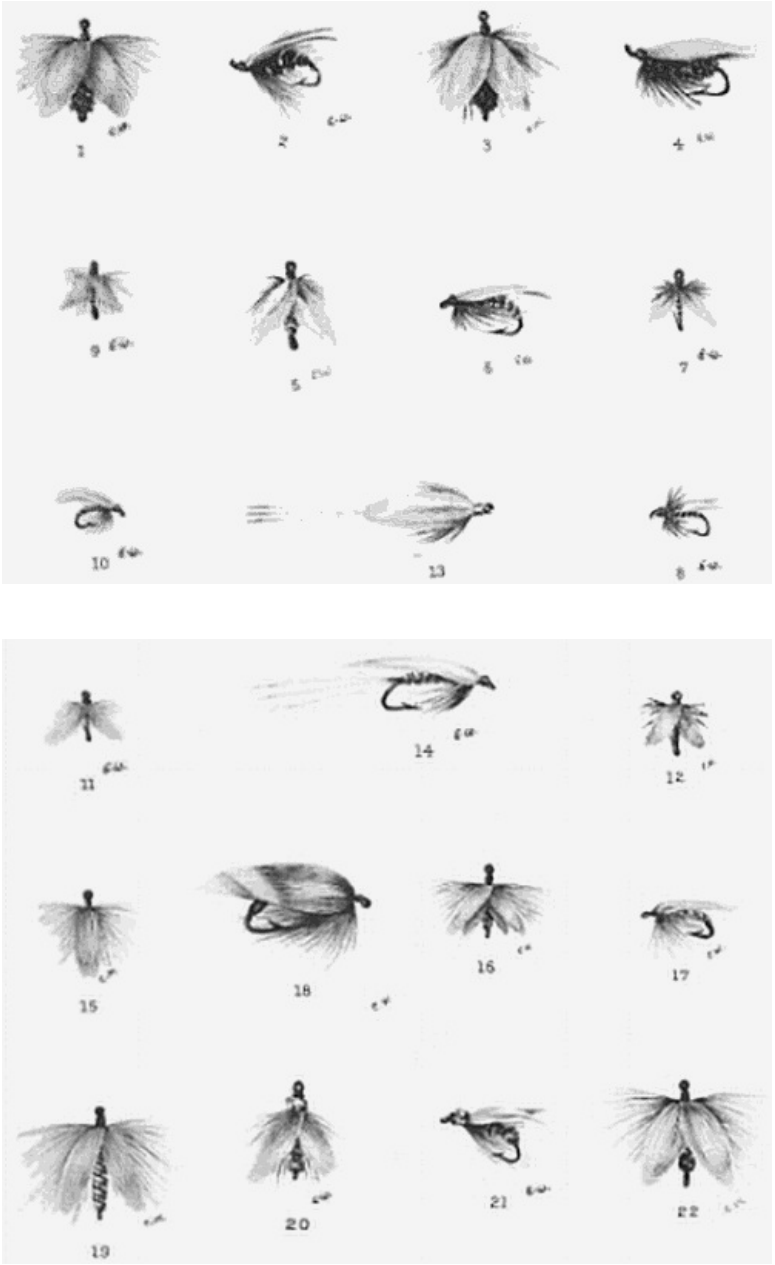
The appearance of the natural fly on the water, when seen from below, may be observed by placing a small mirror at the bottom of a large bowl full of water. I have used one of those small round mirrors which were sent about some time ago as an advertisement for something, I forget what. If the fly be placed on the surface of the water over this mirror, its reflection will show what the fly looks like to the trout.

Another, and perhaps a better, way to observe the appearance of the fly from below the surface is to put it on the water in a large glass aquarium. It can then be observed by looking up at it through one of the sides of the aquarium. [Pg 40]

It is better to use tinsel in dressing these flies than wire, as wire does not reproduce the metallic effect of the air bubble on the body of the natural fly.

PLATE II

ARTIFICIAL FLIES



Swan Electric Engraving C°.

Drawn from flies tied by Mrs. J. R. Richardson, of Kingston-on-Thames (dressed from the Author’s models).

1, 2. Blue-bottle.
3, 4. Green-bottle.
5, 6. House-fly (slightly enlarged).

7, 8. Curse (Black).
9, 10. Curse (Dun).
11. Curse (Badger).
12. Black Gnat.
13, 14. Yellow Sally.
15, 16, 17. Willow-fly.
18. Alder-fly.
19. Oak-fly.
20, 21. Cow-dung-fly.
22. Hawthorn-fly.

CHAPTER IV

[Pg 41]

The Alder-fly (*Sialis lutaria*, Linn.).

The Alder is a fly which hitherto has taken a position in the dry-fly fisherman's estimation very much inferior to that which is its due. Almost every writer on the subject says that it is but rarely found on the water. It is naturally not found there so often as the flies which are hatched out in the water, but I have notwithstanding frequently seen them on the water in fair numbers. The proportion of Alders which get on the water is probably very small if compared with those which do not; but as the fly is in some places extremely numerous, even this small proportion becomes in those places a large number.

[Pg 42]

A practical proof that they do frequently fall on the water is the avidity with which the trout feed upon them, and I have almost always found them in the stomachs of trout when they have been numerous at the water-side. I have also often dropped a natural Alder on the water and seen it taken by a trout.

Many will probably think that I have mistaken one of the Caddis-flies for the Alder, but I can assure them that this is not the case. I have always, with regard to the Alder especially, made a very careful examination of the flies at the water-side, and, as every one knows, even a cursory examination of the fly with a magnifying-glass puts an end to all doubt as to its being an Alder or Caddis-fly, even if the knowledge of entomology possessed by him who examines is but small. The peculiar hump-shape of the wings when at rest also makes an Alder easily recognisable.

I believe that the great reason that the imitation Alder is not so successful as it should be, is because the wings are generally put in an absolutely impossible position. This is not the fault of the fly-dressers, as all writers on the subject have put the wings in this position, a position into which they could not get in the natural fly without the intervention of external violence.

[Pg 43]

I have, in observing this fly when it has fallen on the water, seen its wings in the position of rest as often as not. In fact the only other condition in which I have seen it, is when it has been buzzing violently, apparently with the object of raising itself from the surface. Of course the easiest, and in fact the only possible position in which the wings can be accurately imitated, is the position of rest.

Another mistake in the imitations usually sold, is in the materials used in the dressing. The body is made very fat, with peacock herle; while in the natural fly it is decidedly thin, and of a dark brown colour. The wings are made of brown speckled hen's quill feathers or bustard, which are of a very much richer brown than the wing of the natural fly, and lastly the hackle is much too profuse and goes all over the fly. The following dressing of the Alder I have found to be most successful, both in my hands and in those of other fishermen.

[Pg 44]

Body. Very dark brown floss silk, carried well on to the bend of the hook, and there made a trifle thicker. I have at times found it very successful when ribbed with narrow gold tinsel (00 size).

If the body be covered with thin india-rubber, it will be found to give the fly a most effective appearance.

Hackle. Three or four turns of a black cock's hackle, put on as described in Chapter III.

Wings. From quill feathers of woodcock's wings taken from opposite sides. The woodcock's feathers have a somewhat shiny appearance; and as they are also the nearest in colour to the general colour of the Alder's wings, I think they are the very best feathers to use. I have described the position in which to put the wings in Chapter III.

Hook. No. 2—4, new size.

(Plates I. and II. show the natural Alder and the imitation as it should appear when finished.)

CHAPTER V

Caddis-flies (Trichoptera).

Every fisherman knows the Caddis-worm, which is the larval form of the Caddis-fly. As the number of different species of Trichoptera is very large, there are many different sorts of Caddis-worms. Some of these make cases which they fix to rocks; most of them however have cases which they drag about with them, and retire into it when any danger approaches. These cases vary much in shape and the materials of which they are made. Some species are however, as a rule to be found in almost every water. They are extremely interesting to watch, though, if they are accidentally introduced into a hatching trough containing trout ova, they will destroy the eggs. Caddis worms are taken freely by trout, and I have frequently found them, contained in [Pg 46] their cases, in the stomachs of trout.

The Caddis or Sedge flies, as I have pointed out, are a very numerous family, and most of them are taken very readily by the trout. These flies, when on the water, generally have their wings in the position of rest. Notwithstanding this fact, the wings of the imitation Sedges are always put in an upright position, while the position of the wings at rest in the natural flies is practically the same as in the case of the Alder, though the lower edges of the wings do not, as a rule, come quite so low in relation to their bodies.

The Grannom (*Brachycentrus subnubilus*, Curt.).

This fly is extremely numerous on many of the streams in the South, and is so well known to the fisherman that a description is almost needless. It appears about the middle of April, and lasts five or six weeks, though Ronalds says that he has found them in the stomachs of trout as late as August.

The bunch of eggs which the female carries at the tail is best represented by winding on some [Pg 47] bluish-green floss silk or wool at the end of the body, which should be carried well down on the bend of the hook, as shown in the illustration of the imitation fly.

Body. Light coloured fur from hare's face, with green floss silk or wool at the tail. If ribbed with narrow gold tinsel is sometimes more successful.

Hackle. Light ginger, or, better still, a hackle dark in the centre and light ginger at the ends.

Wings. The lightest-coloured feathers from a partridge's wings.

Hook. No. 1—3, new size.

(Plates I. and III. give illustrations of the natural and artificial Grannom.)

The Sand Fly (*Limnephilus flavus*, Steph.).

Mr. Halford points out in his *Dry-Fly Entomology*, that Ronalds was mistaken in calling this fly the Sand-fly, as the true sand-fly is one of the Diptera. I take it, however, that in either case this is but a popular name; and as almost all former writers on the subject seem to have described the [Pg 48] Sand-fly as being a common Caddis-fly, I think that in adhering to the old name I shall avoid confusing the fisherman.

This fly is one of the most useful of all the Caddis-flies, as it is hatched out in April, and lasts almost all the season. There are several other Caddis-flies which come out later in the year, that resemble it very closely both in colour, shape, and size. The wings are of a yellow ochre colour, barred with brown, the body is covered with short hairs of a light fawn colour, and the fly is about the same size as, or a little larger than, the Grannom.

The dressing given below, if slightly modified, will serve for several of the other Caddis-flies which come out later in the season.

Body. Light-coloured fur from hare's face, ribbed with orange silk. If ribbed with narrow gold tinsel is sometimes more successful.

Hackle. Light ginger.

Wings. The part of quill feather of a hen pheasant's wing that is yellow, barred with brown, or a [Pg 49] similarly barred part of the quill feather of a woodcock.

Hook. No. 1—3, new size.

(Illustrations of the natural and artificial fly are given in Plates I. and III.)

The Red Sedge (*Anabolia nervosa*, Steph.).

There is a Caddis-fly which appears on the water about the beginning of June, and which I have seen in great numbers as late as the middle of October, that does not seem to have obtained a popular name among fishermen.

Its wings are very much like those of the Alder in shape and veining, and the fly is nearly the same size, though perhaps it is, on an average, very slightly smaller. Here, however, the resemblance ends. Its anterior wings are of a light reddish-brown colour, and are more

transparent than are those of the Alder. The body is also shorter in proportion to its wings, and is closely covered with light yellow hairs, which, on the darker background of the body, gives it a greyish-yellow appearance.

This fly is taken freely by both trout and grayling, and I have seen dace feeding on it greedily. [Pg 50]

Body. Lightest yellow fur from the water-rat, spun on black silk.

Hackle. Light red.

Wings. The peculiar shape and colour of the wings are best represented by the tip of a feather covering the roots of the quill feathers in the wing of the landrail. These feathers are of a reddish brown colour, and are found near the upper edge on the outer surface of the wing. The most superficial and reddish feathers are the best. These feathers should be taken from opposite wings, and prepared by stripping off some of the fibres so that they may appear as shown in the illustration of the artificial fly on Plate III. Plate I. gives an illustration of the natural fly.

Hook. No. 9—4, new size.

The Welshman's Button (*Sericostoma collare*, Pict.).

This fly is very numerous in some places, and is taken readily by trout. The body of the imitation is generally made of peacock herle, but this makes it much too thick. The fly generally appears early in June. [Pg 51]

It is said that this fly is often mistaken for the Alder, but it should be easy to discriminate between them. In the Alder the anterior wings are smooth, broad and strong, in the Welshman's Button they are covered with hairs and narrow. This fly is usually smaller than the Alder.

Body. Reddish brown wool, ribbed with narrow gold tinsel.

Hackle. Yellow centre with black ends.

Wings. From reddish quill feather of landrail.

Hook. 2—4, new size.

The Cinnamon Fly (*Mystacides longicornis*, Linn.).

There are a large number of small Caddis-flies which are very much alike in appearance. The anterior wings are long and narrow, and are brown barred with dull yellow. They hover in great numbers by bushes and trees overhanging the water, and are taken readily enough by trout. I have chosen the *Mystacides longicornis* as being one of the commonest and most typical. An illustration of the natural fly is given on Plate I. and of the artificial on Plate III. [Pg 52]

Body. Light fur from hare's face.

Hackle. Ginger.

Wings. Narrow piece from well barred quill feather of hen pheasant.

Hook. No. 0—2, new size.

The Caperer (*Halesus radiatus*, McLach.).

This fly, which is well known to fishermen and appears as a rule in August, is one of the largest Sedge-flies. Its wings are mottled brown and covered with hairs. Several other Sedges somewhat resemble it. (Illustrations of the natural and artificial flies are given on Plates I. and III. respectively.)

Body. Brown fur from hare's face.

Hackle. A badger hackle, the light parts of which are of a pale dull yellow colour.

Wings. From the dullest mottled quill feather of a hen pheasant.

Hook. No. 3—5, new size. [Pg 53]

There are many other Caddis-flies, but the following dressings, perhaps slightly modified to imitate certain flies more closely, will be found to cover most of them.

1. *Body.* White wool, ribbed with narrow silver tinsel.

Hackle. Pale ginger.

Wings. Brown quill feather of landrail.

Hook. No. 0—3.

2. *Body.* Hare's face, ribbed with narrow gold tinsel.

Hackle. Brown ginger.

Wings and *Hook* as No. 1.

3. *Body.* Pale yellow wool, ribbed with narrow gold tinsel.

Hackle. Coch-y-bondu.

Wings. Speckled quill feathers of pheasant's wing.

Hook as No. 1.

CHAPTER VI

[Pg 54]

PERLIDÆ

Imitation Perlidæ, or Stone-flies, are more used in the North in wet-fly fishing than by the dry-fly fisherman of the South.

The best known species is the Stone-fly proper, but this fly does not seem to abound in the South, though I have found isolated specimens at Heathfield in Sussex on two occasions.

This fly is therefore omitted, and the Willow-fly and the Yellow-Sally only are described.

Perlidæ, unlike *Diptera*, have four wings. As, however, the anterior wings cover the posterior when at rest, it is as a rule only necessary to make the imitation with one pair of wings.

This posterior pair of wings in the Perlidæ often materially changes the colour of the anterior pair when they are at rest. Thus in the Willow-fly, though the anterior pair of wings are of a brownish colour, they appear of a dark slaty hue when the fly is seen crawling about. An illustration of natural fly is given on Plate I. [Pg 55]

WILLOW-FLY (*Leuctra geniculata*, Steph.).

This fly comes on late in the season. In September and October it is taken freely by the trout and grayling. It is similar in shape to the Stone-fly of the North.

This fly has almost always been made buzz. Ronalds mentions in his *Fly Fisher's Entomology* that it may be made with wings, but does not say anything about their position. I do not think that the hackle fly is a really good imitation of the natural insect, and it is quite possible to put the wings of the imitation in the same position as those of the natural fly.

It will be seen that there are on Plate II. three illustrations of the imitation Willow-fly. One of these has its wings in the position of rest, the manner of dressing which I have described in a previous chapter. [Pg 56]

The other, which has its wings partially spread, I owe to a suggestion from Mr. G. E. M. Skues.

The posterior pair of wings are put on first, and the anterior afterwards. As the mode of procedure is practically the same as in the Blue-bottle, with the addition of another pair of wings, I need not enter into further detail.

The Willow-fly, when it falls on the water, has its wings sometimes in one and sometimes in the other of these positions.

Body. Light brown fur from water-rat, ribbed with narrow gold tinsel.

Hackle. Ginger.

Wings. Darkest starling's quill feathers. The wings should be made narrow.

Hook. Nos. 00—1, new size.

(Illustrated, Plate II.)

THE YELLOW SALLY (*Chloroperla grammatica*, Poda).

This fly appears in May and June, and though it is said to be occasionally taken by trout, does not seem to be relished to any great extent by them. The wings should be placed one over the other as in the illustrations of the imitation fly given on Plate II. [Pg 57]

Body. Light brown water-rat's fur, ribbed with yellow silk.

Tail. Two brown fibres from pheasant's wing.

Hackle. Partridge hackle, dyed olive.

Wings. Quill feather of white hen, dyed olive.

Hook. Nos. 1—2, new size.

CHAPTER VII

[Pg 58]

Diptera

The order Diptera, or two-winged flies, includes more species which at times serve as food for trout and grayling, than any other order which includes species of so-called flies.

Though naturally many other species than those whose imitations I describe here will be found on the water, I have tried to include those which are most commonly found, without burdening my reader with too many.

The several patterns of imitations of small Diptera (curses) will, I believe, be found to represent most of the commoner species found on the water, at least sufficiently accurately to deceive the trout sometimes, though when the fish are feeding upon these tiny flies, it is very probable that they will refuse all imitations, for many species which serve them as food are too small to imitate. [Pg 59]

Blue-bottle and Green-bottle

The Blue-bottle and Green-bottle, though perhaps some of the commonest of flies, are but little used by the fly-fisherman. The success met with in using the natural fly is very small. The reason for this want of success is the position in which the wings of the imitation are put by the fly-dresser. In this case, like that of the Alder, the fault does not lie with the fly-dresser, as the writers on fly-dressing direct that the wings should be put on in the same position as those of every other fly—that is, in an upright position. Any one, as I have said before, on the most casual observation must realise that the wings of a Blue-bottle and the wings of a May-fly do not lie in quite the same position in relation to the body.

There are many Diptera which come under the names of Blue- and Green-bottles, but as they are very similar in appearance it is only necessary to vary the size, as the trout are probably not sufficiently scientifically educated to discriminate between the different species. The commonest species of Diptera which are included under the popular names of Blue- and Green-bottles, are the *Calliphora erythrocephala*, Mg., and *Lucilia cæsar*, Linn., of which illustrations are given on the Plate of Natural Flies. [Pg 60]

August and September are the best months for these flies, though they come out much earlier. They seem, however, to fall upon the water much more frequently later in the season. They are also very good flies for grayling in October. As I have already said, of the many different species which I have ventured to include under the name Blue-bottle, the commonest at the water side is *Calliphora erythrocephala*. This fly is also found in towns. The Green-bottle, however, which I have chosen to represent all the others as being the commonest at the water side is a country fly, *Lucilia Cæsar*. Some species of *Lucilia*, the bodies of which are generally green, are found in towns. [Pg 61]

Blue-bottle—

Body. Fine dark blue chenille or dark blue Berlin wool, ribbed with silver tinsel. (I have found the fly very successful when ribbed with light blue silk as well as the tinsel.)

Hackle. Black.

Wings. Transparent wing feather of starling.

Hook. Nos. 2—4, new size. (No. 3 best all round.)

Green-bottle—

Body. Bright green peacock herle, ribbed with silver tinsel.

Hackle, *Wings* and *Hook*. Same as Blue-bottle. (Illustrated Plate II.)

House-fly

There are many small Diptera which frequent the water side, which to the ordinary eye are apparently House-flies. They resemble them so closely, in fact, that many could not be discriminated from them except by an entomologist.

I have, therefore, ventured to put them all under the heading of “House-fly.” The only difference which will ever have to be made in the dressing given below is in the body, and very rarely in the hackle; but these modifications must be left to the fisherman, who must judge for himself according to the flies he finds by the water. [Pg 62]

I do not remember ever having met a fisherman who had used an artificial House-fly for trout. Trout however do feed on them; and in this case I can bring other evidence than my own.

Ronalds describes an experiment he made in order to test the trout’s power of taste; and in this experiment he used House-flies, to which he applied various condiments, including red pepper. Though his object was not to prove that trout fed readily on House-flies, I think he proved that they did so.

Probably the commonest of these small Diptera which is to be found by the water is *Musca corvina*, Fab., which is the country cousin of our well-known House-fly, though, indeed, many of the flies which frequent our houses are not the true House-fly (*Musca domestica*). The male [Pg 63]

Musca corvina, whose portrait is given on Plate I., has a body which appears to consist of alternate stripes of yellow and brown. The female, however, has a uniformly dark body. Of the other flies, very similar in appearance to House-flies, the bodies vary in colour; but if made of a yellowish or dull brown, sometimes ribbed, it will generally prove like enough to nature, to deceive the trout.

Body. Yellow ochre-coloured Berlin wool, spun on black silk. Ribbed with silver tinsel and dark brown according to circumstances. (The exact shade is easy to see on the under surface of the natural fly. The under surface of the fly is the surface seen by the trout.)

Hackle. Coch-y-bondhu.

Wings. Transparent quill feather of starling.

Hook. Nos. 00—1, new size.

(Illustrations of imitation, Plate II.)

Cow-dung Fly (*Scatophaga stercoraria*, Linn.). [Pg 64]

This fly appears as a rule in February, but I have seen it on warm days in January, in fairly large numbers. It lasts all the year till the frosts set in. Those cow-dungs which appear early in the year are not so large as those which appear later. The body is covered with short hairs which gives it a velvety appearance. The thorax is large and also has a number of hairs upon it. In order to imitate this large thorax, it is necessary to have more room on the hook above the hackle and wings than in other flies to leave room for a turn of the chenille, of which the body is made, just below the head of the fly. This will be seen in the illustrations of the artificial fly on Plate II.

The body of the male is a bright yellow colour, that of the female is greenish. The male is rather larger than the female. These flies, which on windy days particularly, frequently fall on the water, are often taken very freely by the trout.

Though when at rest the wings are flat upon each other, as shown in the illustration of the [Pg 65] natural fly in Plate I., they often, when the fly falls on the water, are spread out slightly; so in the imitation it is best to put them in the position shown in the illustration of the artificial fly.

Body. Yellow or greenish yellow chenille ribbed with gold tinsel.

Hackle. Ginger.

Wings. Light landrail, or brownish starling.

Hook. 0—2, new size.

Black Gnat (*Bibio johannis*, Linn.).

The black Gnat is found on almost all waters. It is extremely numerous in some places, and is taken very readily by the trout.

These flies are not really Gnats; but as they are commonly called Gnats by the fishermen, I have kept to the old name.

Bibio johannis comes out in June. The body is black in both the male and female, the wings in the male are almost colourless, while the wings of the female are dark. The head of the male is also larger than the head of the female. Both the male and female have a dark oval-shaped patch [Pg 66] about the middle of the anterior margin of the front wing.

Both these flies are taken greedily by the trout when they fall upon the water.

I have found the following dressing the best:—

Body. Peacock quill dyed black, or black silk.

Hackle. Cock starling’s hackle, stripped on one side.

Wings. (*Male*) From most transparent part of quill feather of starling. (*Female*) From brown tipped starling’s tail feather.

Hook. No. 000—0, new size.

An illustration of the imitation fly is given on Plate II.

Hawthorn Fly (*Bibio marci*, Linn.).

Bibio marci is commonly called the Hawthorn-fly, and was described under this name by Ronalds. It is, speaking broadly, first cousin to the Black Gnat, though it is very much larger. It appears at the end of April or the beginning of May. The body is black, and the wings show the oval patch in [Pg 67] the *B. johannis*; but as the fly is larger, in the *B. marci* it is more noticeable. As only the male seems to rove about to any extent, it is just as well to imitate the male only.

Body. Black Berlin wool, ribbed with silver tinsel.

Hackle. Black.

Wings. (*Male*) Transparent part of quill feather of starling.

Hook. No. 1—3, new size.

An illustration of the natural fly is given on Plate I., and one of the imitations on Plate II.

Curses

There are several other small Diptera which at times appear on the water in swarms. These are known to the fishermen as Curses or Smuts. They are often so small that there is no hook made small enough upon which to tie imitations of them. However, as every fisherman knows, when the trout or grayling are feeding on these flies, it is generally impossible to get them to take the imitation of any other fly, it is worth while trying to imitate them on the smallest hook made. This [Pg 68] is an 000, with a short shank. As it is extremely difficult to put wings on these flies, hackle patterns may be tried, but the winged patterns are the best.

Once, when out fishing, I had a very aggravating experience with some tiny Curses. I had been fishing all the morning and had caught nothing. At about two o'clock I saw several good fish rising, but they would not look at my fly. I observed a fair number of light Olive Duns on the water, but both the imitation of this fly and several fancy patterns I tried proved equally useless.

At last I seated myself on a fence close to a clump of willows, lighted a pipe, and began watching a fish which was rising a few yards higher up, not far from the bank on my side of the river. The water was perfectly clear, and when the fish rose I could see him distinctly. He was a grayling of between half and three-quarters of a pound, and rose four or five times in the minute. There were a lot of Smuts on the water, which from where I was, looked very dark if not black. These the fish [Pg 69] rose at regularly, but he let several Olive Duns pass by unnoticed.

The only Curses I had in my fly-box were black; and as those he was feeding upon appeared to be black, I put one on my cast and floated it over him several times. But though he once took a natural Smut floating within an inch of my fly, my fly he would not take.

I then went further down the bank and caught some of the Smuts that were on the water. They were of a mottled dun colour, and the black effect was only produced by their shadow or reflection (which I could not determine) when they were on the water.

Of the flies in my box that which came nearest in general effect to these Curses was a green insect (dun hackle and peacock herle body) tied on an 000 hook. This I put on my cast and floated over him. He rose to it, and as he rose I could see him distinctly. When within a few inches of my fly, however, he stopped short, turned aside, and took a natural Smut that was floating past. I tried him then with an olive quill, a Wickham, and a red tag; but he would have none of them. I [Pg 70] had to give him up in despair, though I believe if I had had a dun-coloured Smut he would have taken it.

The dressings of Curses given here will, I think, be sufficient to include the commoner Curses so numerous on most waters, especially during the hottest part of summer and autumn.

The number of different small Diptera which are found on the water is so great that any attempt to classify them in a work which is meant only for fishermen would be out of place. I have therefore limited myself to giving these imitations—

Curse No. 1 (Black):—

Body. Black silk or black quill, with a turn of the narrowest silver tinsel at the tail.

Hackle. Black.

Wings. Most transparent part of starling's quill feather.

Hook. 000 short shank.

(Illustrated, Plate II.)

Curse No. 2 (Dun):— [Pg 71]

Body. Thinnest part of natural brown ostrich.

Hackle. Dun (hen's)

Wings and *hook* as No. 1.

(Illustrated, Plate II.)

Curse No. 3 (Badger):—

Body, *wings* and *hook* as No. 2.

Hackle. Cock's badger hackle.

(Illustrated, Plate II.)

Curse No. 4 (Red):—

Body. Peacock quill dyed to a crimson lake colour.

Hackle. Black.

Wings and *hook* as No. 1.

Nos. 2 and 3 should be made also without the fluff being stripped off the quill, which in this case should be used just as peacock herle is used.

THE OAK-FLY (*Leptis scolopacea*, Linn.).

This fly, notwithstanding its popular name, is found on many other trees, and I have seen it in places where there were no oak-trees near. It kills very well, and is in season from April to July. [Pg 72] The body is long and tapered, and the segments of the abdomen are, in the male, of a brilliant orange colour, with black markings upon them, as shown in the illustration of the natural fly on Plate I. The wings are brown.

Body. Reddish orange Berlin wool, ribbed with black silk, and narrow gold tinsel.

Hackle. Coch-y-bondhu.

Wings. From sixth or seventh quill feathers of landrail wings.

Hook. New size, No. 2—3.

(Imitation illustrated on Plate II., Figs. 3 and 4.)

CHAPTER VIII [Pg 73]

WINGED ANTS

The Winged Ants, which are the newly hatched insects, appear about the middle of July. The time at which they appear, however, varies very much. They appear in swarms, and when one of these swarms gets near or on the water, the fish feed greedily upon them. They have four wings, the anterior pair being somewhat longer than the body. These wings, when at rest, do not fold neatly over each other, and as the insect is clumsy in its flight, even a slight breeze is sufficient to drive many of them out to the water.

The Ant I have seen most frequently on the water is a large Red Ant, but smaller Red Ants and winged Black Ants are also frequently seen. The position of the wings in relation to the body easiest to imitate is shown in the illustration of the imitation of the Willow-fly, which has four [Pg 74] wings.

The Red Ant is frequently used early in June, though the natural insect is not seen so early. The imitation, however, frequently meets with success, though it is improbable that the trout takes the imitation for the natural insect, especially as the wings are always put on in a vertical position.

The bodies of all the Ants should be made fat towards the bend of the hook, and carried well on to the bend.

As the body of the Ant is very shiny, parts of it, when the light falls upon it, have a very brilliant appearance; therefore I have recommended the use of tinsel.

Red Ant—

Body. Red-brown (burnt sienna) silk, thin on the shank and fat towards and on the bend of the hook, ribbed with gold tinsel.

Hackle. Red.

Wings. Transparent part of a starling's quill feather.

Hook. 0—2.

Black Ant— [Pg 75]

Body. Black silk, ribbed with silver tinsel.

Hackle. Black.

Wings. As Red Ant.

Hook. 0—1.

CHAPTER IX [Pg 76]

CATERPILLARS

“Of the caterpillars, spiders, and other creatures which are supposed to fall from the trees into the water, and into the trout’s mouth, and of the consequent advantage of trees projecting over a stream; of the sapient advice, both verbal and written, to cultivate vegetation overhanging the river, because it increases the supply of natural food; of the statement that fish under trees are invariably in the best condition, anglers have heard from time immemorial. My advice is, cultivate your trees, because they are of advantage as giving shelter to the fish. Not a single example of these tree windfalls has been found in the hundreds of autopsies which I have made, and all the caterpillars and spiders that fall from the trees in a mile of water would not suffice to feed a [Pg 77] single pound trout for a single day. They may therefore be discarded from consideration.”—Halford’s *Dry-fly Entomology*, page 138.

I read this passage with extreme surprise, as it absolutely contradicts my personal experience. After thinking the matter over carefully, and trying to make out how it was that Mr. Halford, in the hundreds of autopsies he has made, has never come across a caterpillar, I realised how dangerous it is to make a dogmatic and sweeping statement with the evidence of personal experience only to fall back upon.

As recently as June, 1897, when fishing with Dr. Charles R. Watson and Mr. A. D. Home, I made with them a series of six autopsies of trout caught consecutively in one morning. The smallest number of caterpillars found in one of these six autopsies was five, and the greatest, twelve. These trout were all caught under oak trees overhanging the water, which were at that time swarming with small caterpillars, most of these caterpillars being of a brilliant emerald green [Pg 78] colour.

In the afternoon of the day on which I am writing this, Colonel Walker showed me a peculiar sort of knife which he carries when out fishing, for the purpose of making autopsies on trout. I naturally took advantage of this occasion to increase my evidence, and asked him if he had ever found caterpillars in the trout he caught. He told me that in certain places, in the early part of the summer, he almost always found caterpillars in the stomachs of the trout he caught under trees overhanging the water.

This experience of his exactly coincides with my own, though the six consecutive autopsies described above without my other similar experiences is a fairly strong piece of evidence. I am therefore inclined to believe that there is some good to be gained in following the sapient advice, verbal and written, to cultivate vegetation overhanging the river, beyond its advantage as giving shelter to the fish.

I will narrate the circumstances which first led me to use the caterpillar as a dry fly, as they may, [Pg 79] I think, interest my reader.

I was lying on the bank by a large pool on a stream, and saw a little green caterpillar hanging from the branch of an oak tree, apparently trying in vain to pull himself up the thread by which he had so foolishly lowered himself, till he was uncomfortably near the surface of the water. I watched him, lazily thinking in a dreamy manner how very unkind it was of the trout to keep on rising, and yet not look at my fly. They were evidently feeding on something, but what it was I could not make out. The little green caterpillar was getting gradually nearer to the water, and I was beginning to think that the poor little chap would meet with a watery grave, when just as he touched the water a trout came up and grabbed him.

Little green caterpillars were evidently what the trout were feeding upon, and that was the reason that I could not catch one with a fly. I watched the branches of the oak tree overhanging the water for some time, and saw several caterpillars fall in and meet with the same fate. The [Pg 80] next thing I did was to catch a caterpillar, scrape the fly dressing off my hook, and put him on it instead. I caught several trout in this way, but found that it was almost impossible to cast any distance without shaking off the caterpillar. After much trouble caused by this difficulty, which was very trying to the temper, as the caterpillars always seemed to come off the hook at the most critical moment, and having got a fairly good basket, I found it was time to return. That night I managed to make some fairly good imitations of the little green caterpillar to use on the morrow, instead of the natural ones. These imitations met with success, and since that time I have been able to improve on the dressings then used.

I have found many different kinds of caterpillars in the stomachs of trout, but small green ones of various sorts were decidedly the most numerous. The species I have most frequently found is, I believe, the larval form of the *Tortrix viridana*. I have never found a large caterpillar in a trout, though I have caught trout with imitations of them used as dry flies. I give the exact dressing of [Pg 81] the green caterpillar; but the other dressings must be left to the discretion of the fisherman for alterations, as there are so many sorts of small caterpillars, some of them being extremely rare in one place and common in another.

Should the fisherman wish to see the sort of caterpillar commonest where he is fishing, he must seek them himself. Those only are useful which are on the trees overhanging the water. If there are oak trees the caterpillars will probably be green, and many kinds of caterpillars will be found which have rolled themselves up in the leaves of the tree upon which they live. I have no doubt that this imitation caterpillar will be looked upon as a poaching implement, but it is or should be used as a dry fly, and to use it successfully requires as much skill and power of observation as does the use of any imitation of a fly used in a similar manner.

How to make an Artificial Caterpillar.—A small piece of cork 1/32 of an inch thick, or less, and

nearly twice the length of the hook, must be cut into the shape shown in Fig. 17. Next take a piece of quill rather longer than, and about the thickness of a large pin, from a tail or wing feather of a starling. This quill makes the foundation of the body. Split the thick end of the quill far enough to embrace two-thirds of the shank of the hook, and then tie it on the hook as shown in Fig. 18. Now fold the piece of cork, with the broad end towards the eye of the hook, over the shank of the hook and the quill, tying it in as shown in Fig. 19. [Pg 82]

Fig. 18. (left), Fig. 17. (center), Fig. 19. (right)

This foundation serves for any caterpillar. Tie it at the tail whatever is to be used for ribbing the body, and the body material if it is not to be spun on the tying silk. Then wind on the body material, tie it in, wind on the ribbing, finish off at the head, and cut off the projecting piece of quill. [Pg 83]

The caterpillar when finished should appear as shown in the illustrations on Plate III.

Green Caterpillar.—1. Emerald green wool spun on tying-silk, ribbed with light yellow silk.

2. Emerald green wool spun on tying-silk, ribbed with scarlet silk.

3. Yellowish green wool spun on tying-silk, ribbed with narrow gold tinsel.

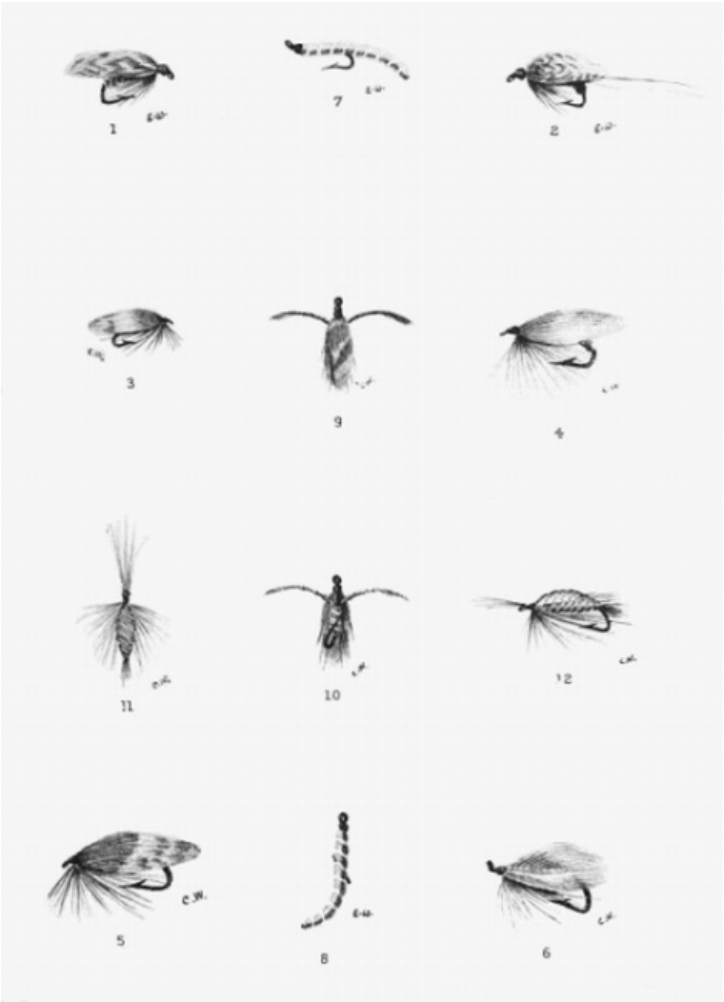
4. Olive green wool spun on tying-silk, ribbed with narrow gold tinsel.

(I have found Nos. 1 and 2 very successful when ribbed also with narrow gold tinsel, and Nos. 3 and 4 when ribbed with light yellow silk.)

Other Caterpillars made with a reddish-brown body, and ribbed with yellow or red, are also sometimes very successful, as are those also ribbed with red or Coch-y-bondhu hackles.

PLATE III

ARTIFICIAL FLIES



Swan Electric Engraving C°.

Drawn from flies tied by Mrs. J. R. Richardson, of Kingston-on-Thames (dressed from the Author's models).

1. Sand-fly.
2. Grannom.
3. Cinnamon-fly.
4. Welshman's Button.
5. Caperer.
6. Red Sedge.

7, 8. Green Caterpillar.

9, 10. Corixa.

11, 12. Fresh-water Shrimp.

[Pg 84]

PART II

[Pg 85]

WET FLIES

[Pg 86]

CHAPTER I

[Pg 87]

A Theory[1]

[1] Rewritten from an article in *The Field* under the heading of "An Unorthodox View of Wet Fly Fishing."

That a trout or any other fish could possibly mistake a wet fly used in the regular wet fly way for the natural fly of which it is supposed to be an imitation, was always to my mind a very doubtful question; but now it is so no longer. I am sure the fish takes it for something else.

If we consider what would happen to a natural fly which had by some mishap become submerged,

we can come to no other conclusion than that it would be carried along by the current, without any power of its own of altering the direction in which it was being moved by the water. Does this [Pg 88] ever happen to the sunk fly? I think not. In fishing across and down stream it certainly does not; and even in up stream fishing, in order to keep his line straight, the fisherman must keep a certain amount of tension on it, and very probably draws it through the water with much the same sort of movement he would give it if not fishing up stream.

This movement through the water which is given to the artificial must be absolutely unlike any movement of the natural fly when under the surface; for in the natural fly, if it were not already drowned, the only possible movement would be that of its legs and wings, which, not being intended as a means of progression through the water, and being absolutely unsuitable for that object, would be most unlikely to enable it to do so.

But here a very natural question arises as to what, if not the natural fly, the fish takes the imitation to be? In a communication to the *Field* in June, 1897, I described, under the heading of "A New Trout Fly," the imitations of two Corixæ. This seems to be a key to the whole question. [Pg 89] The number of insects living in fresh waters, and possessing the power of moving through it, is enormous.

There are between 220 and 230 different species of Water Beetles in our waters. There are also very many different sorts of Heteroptera, including the numerous family Notonectidæ. When we add to these the larvæ of flies and water beetles, the Crustaceans, Hydræ and Water Spiders, we must begin to realise that there are other things than a drowned natural fly for which the fish might mistake its imitation, with the materials of which it is made soaked in and drawn through the water.

The movement of many of these creatures through the water is fairly represented by the movement of the artificial fly in wet fly-fishing; and, when the shade and colour and size of the fly is the same as one of these aquatic creatures, I am sure that the fish takes it, not for a fly, but for one of them. Again, when the enormous number of these aquatic creatures is considered, it is most probable that one or other of the flies tried on any water by the fisherman will come very [Pg 90] near in shade, colour, and movement through the water, at any rate, to one of them.

If this conclusion at which I have arrived is correct, as I believe it to be, would it not be wiser to try to imitate, not the natural fly, but some of these numerous aquatic creatures? They are numerous enough, and a large number of them are easy to imitate; but as yet but little has been done, except with regard to the spiders, in this direction. I am also sure that the success of the so-called spider patterns used in wet fly-fishing has been due to quite a different cause to that which those who first used them and those who use them now believe, as these imitations are made from the insect as it appears when out of the water. The spider goes from its nest to the surface of the water and back again by a thread stretched between, and so would hardly move through the water, as its imitation is made to do by the fisherman. Those of the so-called spider-flies which are supposed to represent some of the Ephemeridæ, are, for the reasons I have given [Pg 91] before in speaking of flies in general, most unlikely to be mistaken for the natural insect by the trout.

A trout will undoubtedly sometimes take anything moving through the water which simulates life, if it be of a suitable size. This is shown by the manner in which they take the fancy flies; although here again, as one particular pattern of a fancy fly kills better than any other on one particular water, I think that very often this fancy fly is taken by the fish for some creature which is particularly numerous there. At any rate, if the fish only takes the artificial fly because it is apparently something alive and moving, I am sure that he would seize it with much more avidity if it represented one of his aquatic neighbours on which he has been feeding, and if its appearance reminded him of many previous pleasant meals. (Jan. 15, 1898.)[2]

[2] Since this article appeared in *The Field*, some correspondence on the subject has taken place in *The Fishing Gazette* and *St. James's Gazette*. Many of the arguments brought forward by some of the correspondents have led me to believe that I cannot have made myself sufficiently clear in the above article, so I have added some further explanations.

My readers must not suppose that I intend to apply these remarks to any particular [Pg 92] circumstances; I am only speaking of wet-flies in general. While it is probable that the natural fly does often sink under the surface, and may then be taken by the trout, the wet-fly of the fisherman does not as a rule behave as does the natural fly when under water. That the trout takes the wet-fly fished up stream, which is allowed to come down with the current without any drag and close to the surface, for the natural fly it represents, is also very probable; but these facts do not in any way tend to disprove my theory. This manner of wet-fly fishing is very much like dry-fly fishing, and is certainly not the way in which wet-fly fishing is practised in lakes, and is hardly the most general way in which it is practised on many rivers.

In dealing with this subject fully and to carry my theory to its necessary conclusion, it is of course necessary to find a probable explanation of what every form of wet-fly, fancy or supposed imitation of a natural fly, is taken for by the fish. This naturally leads us to believe that such a [Pg 93] theory, if it approaches the truth, should include an explanation of why the salmon takes the fly.

We know but little of the world as it appears to the eye of the fish, but from the little that is known something may be deduced which carries this theory a little further. In the sea many and very various effects may be produced upon objects moving through the water when passing

between the eye and the surface, by light, by the reflecting powers of the bottom of the water, and by the relative clearness of the water, all of which factors of the effect produced vary to an almost incalculable extent.

Given a bright sun, a light sandy bottom and clear water, a small crustacean swimming between the eye of the observer and the surface often will not appear to be like the creature when it is seen out of the water. The outline will be indistinct, and the whole will frequently appear to be brilliantly coloured. Not only is the body thus brilliantly coloured, but equally gaudy rays will be seen round it, probably produced by the moving legs and by refraction.

In this case the circumstances are all in favour of the production of an effect of brilliant colouration; but going to the other extreme, with a dull light, a dark bottom and cloudy water, we have the dullest-coloured fly accounted for, as the first conditions accounted for that which was most gaudy. This also explains the fact that the flies which go in various gradations of colour between these extremes are most suitable for various conditions of the weather, water, and locality. [Pg 94]

In the case of the Salmon-fly, probably the salmon remembers, when he has reached fresh water, many an appetising morsel in the shape of a crustacean or small fish, and takes the fly for one of these.

In the case of the trout we know that crustaceans are very acceptable to them, and though probably fresh water will not produce the brilliant effect which is produced by salt water as I have described above, still, as fancy Trout-flies do not run to such gaudy colours as do Salmon-flies, still the effect should be sufficient to account for a fair amount of brilliant colour under similar conditions. No doubt some of the fancy Trout-flies are also taken for small fish. [Pg 95]

In many waters, however, the effect could hardly be made brilliant, as shallow water, shade produced by weeds, &c., and muddy or dark bottoms would all militate against its being so, and in these waters probably only lures that imitate the actual colours of the object they represent would be of any use.

In fresh water and in the case of trout, as I have pointed out, there are many aquatic creatures which serve as food which have the power of swimming through the water.

My theory, stated briefly and more explicitly, I hope, than was the case in my article in *The Field*, is that under circumstances in which the wet-fly behaves more as does some creature having the power of swimming through the water, it is better to imitate this creature than any natural fly on the water, which cannot in any case behave in such a manner; and what I wish to advocate is, that imitations of these aquatic creatures should be made and used.

CHAPTER II [Pg 96]

CORIXÆ[3]

[3] Rewritten from an article in *The Field* under the heading of “A New Trout Fly.”

While fishing in a water where the trout are very numerous in the spring of 1897, I found that I could hardly catch a single trout in the day with the fly. The weather was cold and windy, and showed no signs of mending. At last, one day, I opened a trout, one of the few that I had caught during my visit, and found the stomach full of some insects belonging to the family of Corixæ. These insects are very commonly called Water Beetles, or Water Boatmen. They, however, are not beetles but bugs (Heteroptera), and are not the same as the true water-boatmen, the *Notonecta glauca*, though they somewhat resemble it in appearance.

On finding these insects in the trout I took some of them home, and made imitations of them. With these the next day I caught a number of trout, though the weather was just as unfavourable. Since then I have improved somewhat upon the imitations I then used, and in waters which are inhabited by Corixæ. These imitations have met, both in my hands and in the hands of others, with greater success than any other form of wet fly. [Pg 97]

It is an extraordinary thing, considering the number of men who have written on trout fishing, that it has apparently never occurred to one of them to describe an imitation of one of this large family of insects. Mr. Halford, in his *Dry-fly Entomology*, indeed states that he has frequently found them in the stomachs of trout, but he does not even suggest that an imitation of them might be made.

There are many species of Corixæ which inhabit our waters, but the commoner sorts are so similar in appearance that many of the species are very difficult to distinguish even by an expert, and but little work has been done with regard to them. Therefore I have come to the conclusion that a similar dressing on different sized hooks will be quite sufficient to deceive the unscientific eye of the trout. This conclusion is corroborated by the fact that I have several times had an imitation Corixa seized by a trout when it was sinking, and before I began to draw it through the water, which is, I take it, a fairly severe test as to the accuracy of the imitation. Colonel Walker [Pg 98]

and Mr. Herbert Ash have also had the same thing happen to them when fishing with my imitation Corixæ.

Corixæ vary much in size, the largest and one of the commonest species being the *Corixa geoffroyi*, which is about half an inch long. In all Corixæ, the head is wide and is attached but slightly to the body. It is convex in front and concave behind, so as to fit the end of the thorax, and is as wide as the wings when folded and at rest. These insects possess four wings, which they frequently use, though they are somewhat clumsy in starting from the surface of the water. I have sometimes, however, seen them fly considerable distances. The anterior wings resemble the wing-cases of a beetle; they are hard and shiny, brown in colour, with dark mottled markings [Pg 99] upon them. The posterior pair are transparent. The abdomen is light yellow and fringed with hairs, and there are transverse lines on the dorsal surface of the thorax. As, however, these markings on the thorax and wings are hardly visible to the naked eye, they give the Corixa a generally brownish and shiny appearance. Of the legs, six in number, the hind pair are most used in swimming. They are somewhat flattened at their extremities to a paddle shape, and are fringed with hairs. I have seen the hind legs of the Corixæ when the insects have been suspended motionless in mid-water, standing out at right angles on each side of the body; and as in the imitation I am about to describe, the legs take this position when the fly is at rest or sinking in the water; this explains the fact of the trout taking them in the way I have mentioned above.

The *Corixa sahlbergi*, which is almost as common as the *Corixa geoffroyi*, is about half its size, but is otherwise very similar in appearance, as are nearly all the other smaller species. [Pg 100]

The Corixa frequently comes to the surface to breathe, and a number of small air bubbles attach themselves to its body. These, when the insect is swimming under water, give its body a brilliant silvery appearance, with the yellow showing through in places. This effect is accurately reproduced by ribbing the body with silver tinsel.

The size of the hooks used must depend upon the size of the species of Corixæ inhabiting the water to be fished, and varies from No. 1 to 3, new size.

The Corixæ in any particular water may easily be found in order to observe the size. They congregate in great numbers among the weeds, &c., on the bottom of the water. They are very numerous in most millponds, pools, back-waters, sluggish waters and ponds.

The body is made with light yellow Berlin wool, teazed up with fur from the hare's face, and ribbed with silver tinsel. A good space of shank should be left above the body.

The only legs which make any show in the water are the hind legs, and they are the only ones it is [Pg 101] absolutely necessary to imitate; should, however, the fisherman wish to imitate the others, one turn of a ginger hackle may be used.

When I described the Corixa in the *Field* I directed that the hind legs should be made with a strand of peacock herle. I have however found a better imitation of these legs since then, in the end of a quill feather from a starling's wing. This keeps up its spring even when soaked for a long period in the water, while the peacock herle legs after a time adhered to the body of the fly, and did not stand out on each side when the fly was at rest. The tip of the feather should be completely cleared of fibres on one side, and nearly so on the other, leaving however a few short stumps at the end, as shown in illustrations of imitation in Plate III., to represent the paddle-shape of the legs. These legs are then tied in at right angles to the body. I have found the best way of accomplishing this is to tie the legs in straight to the side, with the buts pointing towards the tail of the fly. Then bend them down, and put enough turns of the tying silk round the shank [Pg 102] of the hook to keep them in the position shown in the illustration of the imitation.

The wings are made from the quill feathers of the woodcock, laid flat on the body one over the other, as described in the directions for tying Perlidæ, which have their wings lying one over the other. The head must be made large, and the whole fly when finished appear as shown in the illustration.

When used, this fly should be allowed to sink. The depth to which it must sink varying according to circumstances, and then drawn through the water in little jerks. Each of these movements through the water causes the legs, which stand out on each side of the body, to bend back; but at the end of the jerk, when the fly is momentarily stationary, these legs resume their original position. Thus the movement of the legs of the natural insect when swimming is accurately imitated. (June 12, 1897.)

This imitation *Corixa* has met with a very general condemnation as not being a lure which should [Pg 103] be allowed on waters where the use of the fly only is permitted. As this child of my fancy has cost me many hours of careful thought and labour, I am inclined, with all due deference to these opinions, expressed by men of much greater experience than mine, to say a few words in its defence.

Corixæ are insects which live in the water and are eaten by trout. They possess wings which they use frequently, sometimes flying a considerable distance, and I have seen trout take them just as they were trying to leave the surface of the water. The efficacy of the imitation, therefore, depends upon the skill of the fisherman, who must make it simulate in its movements the

movements of the natural insect. Mr. G. A. B. Dewar, in his *Book of the Dry Fly*, in speaking of “tailing” trout, which are probably feeding on "food of the shrimp and snail order,“ advises that they should be fished for "with a long line down stream, and the fly worked with a series of little jerks, somewhat as in salmon-fishing. The fly should be cast just above where the head of the [Pg 104] trout is adjudged to be, and worked into the angler’s bank, and it must never be kept still, otherwise the fish will at once perceive the deception and at once decline it.” Mr. Dewar then mentions a dry-fly angler of great skill who is very successful in fishing in this manner with a big Alder. It is more than probable that in these cases the Alder is taken for a *Corixa*, or something very like it, as the colour, size, and movements are somewhat similar.

The Marquis of Granby, in the preface to Mr. Dewar’s book, also speaks highly of a sunk alder for “tailing” trout.

“To kill ‘tailers’ in broad daylight and in low water is quite an art in itself,” is another quotation from *The Book of the Dry Fly* upon this mode of fishing, and though the author points out that this is not true dry-fly fishing, still if the fisherman’s conscience allows him to use a sunk Alder down stream and worked in this manner, I think it should also allow him to use an imitation *Corixa* under similar circumstances.

I should not have dragged the writings of others into such a question as this, had not the [Pg 105] criticisms upon my flies been an indirect attack upon myself, as what has been said about them practically means that they ought not to be used by any one who calls himself a sportsman. If this is true of the flies, what could not be said of their inventor? For this reason I take the best means I can find to defend myself, and what better defence could there be than the published practices of two men whose sportsmanlike qualities have never been doubted?

What is legitimate trout-fly has, I believe, never been clearly defined; but I hope I shall not be presuming too much in saying, that if the lure in question is the imitation of an insect which can and does fly, made of the ordinary materials used in fly-making upon one hook, this lure has a perfect right to be called a *legitimate trout-fly*.

It will be found that my *Corixa* fulfils these conditions.

There is one thing that I wish particularly to impress upon my reader, and this is that, in using the imitations of *Corixæ* and Fresh-water Shrimps, he should find out whether these creatures [Pg 106] inhabit the water he is fishing. If he does not do this and fishes with the imitations of either of them where they do not exist, he will probably meet with failure and disappointment.

CHAPTER III [Pg 107]

Fresh-water Shrimp (*Gammarus pulex*)[4]

[4] Rewritten from an article in *The Field*, April 16, 1898, under the heading of “The Fresh-water Shrimp as a Wet Fly.”

Of all the forms of food partaken of by the trout the Crustacea are the best. When I say the best, I mean that trout fed upon Crustacea seem to thrive better than trout fed on anything else. In this case, at any rate, the most wholesome form of food seems also to be the most welcome; for though I have tried feeding trout with almost every form of food, I have never come across another form which they have taken with anything approaching the voracity with which they take Crustacea.

Fortunately, I can bring forward a case to show how trout thrive when fed upon Crustacea. In April, 1897, Colonel Walker presented some trout to the Brighton Aquarium. I myself caught [Pg 108] some of these trout, which were put in a rearing pond to await their being transferred by rail to the Aquarium. As I also assisted in the operation of taking them from the rearing pond and putting them into the tanks in which they were to travel, I can vouch for their size at that time. They were all in rather bad condition, and, even had the largest been in good condition, it could not have weighed more than three-quarters of a pound. These trout have been fed entirely on Crustacea since they were introduced into the tank they now occupy; and at the time I am writing (January, 1898), the largest of these trout must be quite two pounds or more in weight, and there are others which are nearly as large.

The voracity with which these trout seize the Sandhoppers and Shrimps upon which they are fed is a perfect revelation. I have seen them leap out of the water to catch the Shrimps thrown to them before they reached the surface.

I have also found that young trout in rearing ponds take Fresh-water Shrimps with the same [Pg 109] greediness; and on considering these facts, I am surprised that there have not been more attempts to imitate the Fresh-water Shrimp.

The *Gammarus pulex* may be found in almost all streams, especially where there is much vegetation. An illustration of it is given on Plate I. I have however found them abundant in streams where there were no weeds. They hide under stones at the bottom of the water and among the weeds, especially among watercress and starwort. Though they will live in still water,

I have found them most numerous in streams; and notwithstanding that they are generally supposed only to inhabit somewhat sluggish streams, I have found them in fairly rapid ones, with a stony bed. The Shrimp is very prolific, and if protected increase very rapidly; thus it is a most excellent plan for those who breed and rear trout to cultivate them, as they are one of the most valuable forms of food.

These animals are very similar in shape to their well-known relation, the common Sandhopper. In colour they vary very much according to the water they inhabit. I have seen them a pale yellow [Pg 110] colour in some streams, while in others they are almost black. The commonest colour is however a reddish-yellow.

I find that the general idea is that these Shrimps travel through the water in quick leaps by bending up their bodies and straightening them out again. I have however never seen them do this, though I have kept them in an aquarium and watched them very carefully.

What I have seen is, that they use their legs to swim with, moving them as though they were walking very rapidly. They cannot, however, walk when they are taken out of the water, but lie perfectly helpless upon their sides. In a stream where the Fresh-water Shrimp swims, it seems unable to progress up stream, or at any rate, if it does it moves very slowly; when they wish to go up stream they crawl along the bottom. They can, however, as a rule, maintain the same position against the current.

I have found the following to be the best way to dress an imitation of the Fresh-water Shrimp:— [Pg 111] Choose a light ginger tackle, cut the tip off, and tie the tip on a hook (No. 1 or 2, new size), so that the fibres will project for between 1/8 and 1/4 of an inch at the tail. Tie in a thin strip of india-rubber and a piece of narrow silver tinsel.

The strip of india-rubber must be taken from a piece of the natural rubber, and cut so thin that when stretched it is transparent. When stretched it should be quite a sixteenth of an inch broad. A little piece of india-rubber tapered at each end and half as long as the shank of the hook, must now be fastened to the shank near the head of the fly, placing the piece of rubber on the shank and tying it in with the tying silk. Now bring back the tying silk to the tail of the fly, and spin the wool, of which the body is to be made, on to the tying silk and wind it on the shank. The wool may vary in colour, according to the colour of the Shrimps in the stream to be fished, from light yellow or reddish-yellow to a very dark brown. When the wool body is finished off, wind on the strip of india-rubber, so that the edge of one lap meets the edge of the other, thus covering the body [Pg 112] entirely; tie in and cut off the remainder, and then rib the body with the tinsel.

In putting on the hackle, which is light ginger, it is necessary that some of the fibres should be made to project forwards, so the tying silk should be finished off behind these. When the fly is complete it should appear as shown in illustrations of imitation on Plate III.

In fishing this fly must be allowed to sink to mid-water, and then allowed to travel across and down stream in short stages; but should not be drawn towards the fisherman in any marked way, or it will not represent the movements of the natural Shrimp.

Whether any particular stream is inhabited by these Crustacea may be easily discovered. If the stream has a stony bottom they will be found under almost every large stone which is turned over. If, however, there be *débris* or mud at the bottom, they may easily be captured with a stout gauze net, mounted on a strong ring and handle. If this net be passed along the bottom, and some of the weeds and *débris* brought up, the Shrimps will be found among the contents of the net. I [Pg 113] should strongly advise any one possessing a trout stream which is not inhabited by the Fresh-water Shrimp to introduce them, for they are, as I have pointed out, one of the very best forms of trout food. I have been very successful with the imitation shrimp on waters which contain the fresh-water shrimp.

This imitation has also met with general condemnation of an even more decided character than that of the Corixa. In neither case, however, have any reasons been given for the condemnation.

As undoubtedly some of the hackle flies used wet must be very like a shrimp, and if the imitation shrimp is condemned, so also should these hackle flies.

Larvæ of Water-Insects, which have the power of swimming in the water, are best imitated by making a very taper body, with a large head. They are many of them small, and these should not be tied on a hook larger than No. 1, new size. There are, however, many larvæ which are larger, [Pg 114] but not many of these swim about much in the water. Some are brownish-yellow, and some nearly black. Some should have a tail made of two or three strands of hackle the same colour as the body. Some have appendages on the sides of the body, and in the imitations of these the hackle must be tied in at the tail, carried up over the body, and a couple of turns given at the shoulder. They may be made in various shades, from brownish-yellow to black. I have not yet had time to work out any proper scheme of imitations, but only write this as a suggestion.

SOME HINTS ON DRY FLY-FISHING [Pg 115]

On Casting

The fly must not be thrown directly on to the water, but should be allowed to drop there by gravitation. Thus the line should extend itself in a perfectly straight line in the air, at least a foot above the surface of the water, and then the fly will drop naturally upon it.

On Keeping the Line Floating

Unless the line be floating it is almost impossible to avoid a “drag,” which is, as a rule, absolutely fatal. The best way to make the line float is to rub the last twenty-five yards with vaseline, then go over the line with a lump of beeswax, and finish up by rubbing very gently with a rag with vaseline upon it. A rag should be carried when out fishing, with a small piece of beeswax in it. A small tin of vaseline must also be taken and then, when the line shows any signs of sinking, it must be rubbed with the rag which has been previously dipped in the vaseline. The small piece of beeswax should touch the line as it is being rubbed with the rag, and the wax will become soft on the surface as it mixes with the vaseline. [Pg 116]

On Making the Fly Float

Many fishermen use odourless paraffin; but it takes some time for the paraffin to float off, and when a quick change of flies is necessary, this is a great disadvantage. If the finger be dipped very slightly in the tin of vaseline, so that there is just a suspicion of it on the skin, and the hackle of the fly be rubbed with it, the fly will float as well as it does with the odourless paraffin, and the vaseline will not float off. Personally I prefer not to use anything. This entails a small amount of extra labour in drying the fly; but the tints of the fly are not altered, as they often are if any form of grease is used to make the fly float.

RICHARD CLAY AND SONS, LIMITED, LONDON AND BUNGAY.

TRANSCRIBER NOTES:

Punctuation has been normalized without note.

Footnotes have been moved closer to their reference point in the text.

Page x: Page "72" changed to page "73" Chapter VIII, Winged Ants.

Page 10: "biassed" changed to "biased" (I must be naturally biased).

Page 100: "teased" changed to "teazed" for consistency (teazed up with fur).

*** END OF THE PROJECT GUTENBERG EBOOK OLD FLIES IN NEW DRESSES ***

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