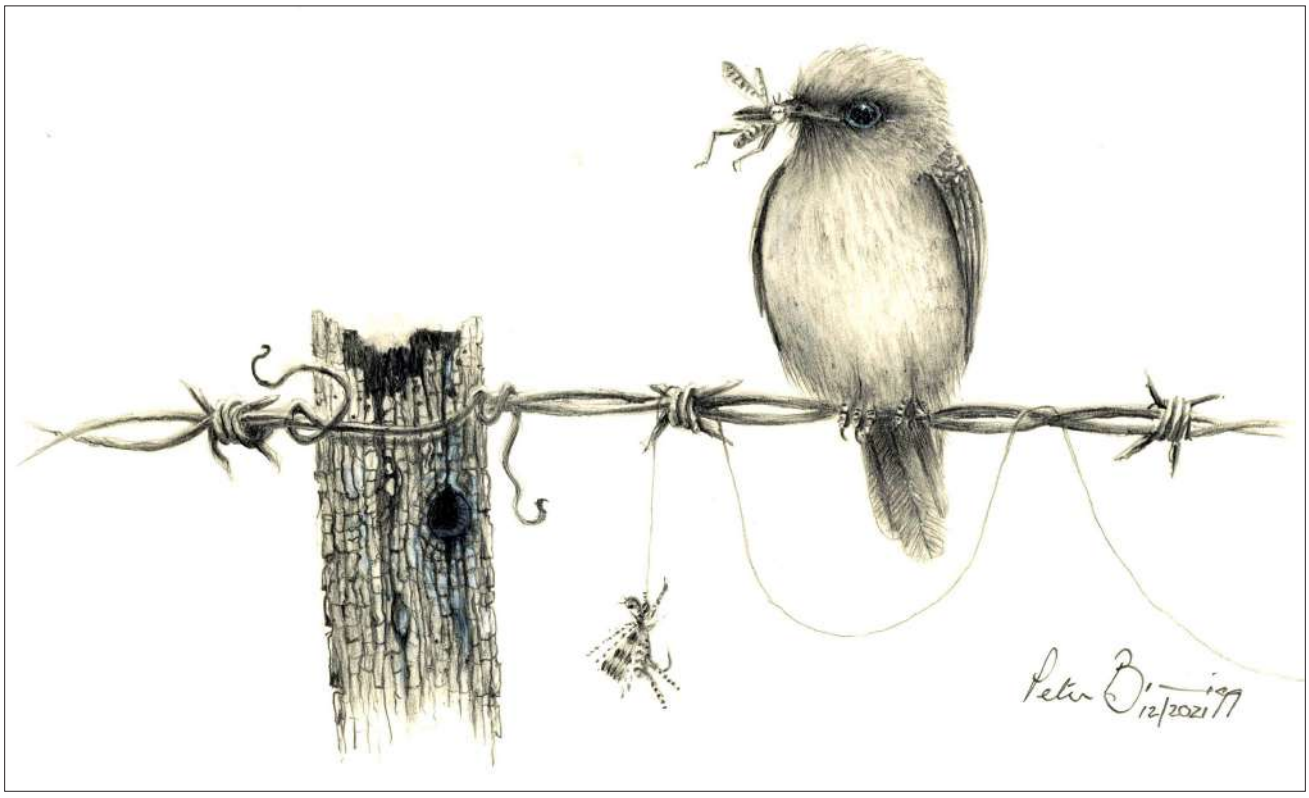
CHAPTER 22

Hopper Design – a Continuing Quest



'Anyway, I put on one of Ed's Hoppers and immediately a large trout came unstuck from the very bottom of a run and, in a swoop, got itself solidly hooked lifting the fly a clear foot out of the water. Standing side on to the run I saw the whole take, and wondered when I had last seen a trout come up to the fly with such determination. To cut a long story short we caught fish until the supply of Ed's hoppers ran out about mid-afternoon, by when I was fast becoming a convert.'

Tom Sutcliffe *Ed Herbst's New Hopper Piscator* November 1998

'As you fish it, say in a dead drift on a quick run, the legs stand wide and I imagine move, but not enough to excite the trout. It's when you twitch the fly that the legs really move. This is often an irresistible trigger and a key feature of Ed's pattern, one that lifts it above all other hoppers I've ever tried.'

Tom Sutcliffe, *Hunting Trout* (Freestone Press, 2002).

If one accepts that the average small stream trout is, as they say on the rocky streams of the Yorkshire Dales, 'four to the pound' then the hopper they fling from drift boats in the USA - hook sizes four to eight long shank - make no sense in that 'Lilliput Water' environment.

All I wanted was a 'Whisper Rod' hopper, a fly that would be easy to cast on the ultra-light line rods pioneered by Howard Steere at Orvis and, subsequently, by Jerry Siem at Sage. I wanted a GISS – general impression of size and shape - hopper pattern which ten to thirteen-inch small stream trout could get into their mouths.

As always, my approach was based on my reading.

I wanted a fly that incorporated the design thoughts of people like Gary Borger and Lefty Kreh when it came to imitating the legs of the insect because this, I believed, was the key to the success of the pattern.

What strengthened my belief that this was the correct design emphasis, was my experience with the first hopper I tied some 40 years ago, recreated here by Storms River professional fly tyer, Marcel Terblanche

The author's first hopper based on the head design of the Muddler Minnow with the addition of two rubber legs and a wing of golden pheasant tippets

It was a mixture of existing ideas. It had a clipped deer hair head derived from the Don Gapen's Muddler Minnow which influenced the subsequent hopper designs of Ed Shenk and Ernest Schweibert on the Letort Spring Run.

The body was a piece of furled yellow wool, and the wing was made of golden pheasant tippets.

Hoppers play an important part in the diet of Australian trout and the first indigenous fly from that country, the Bredbo, dating from the 1890's, cracked the hopper code for contemporary fly anglers. It had a yellow floss body and wing of Golden Pheasant Tippets and was named after the river which flows through the village of Bredbo on the Monaro plains in North South Wales

I reasoned that if this wing design worked in another southern hemisphere country, it would work on South African trout

It had two rubber legs projecting backwards in a V-shape.

I'll never forget, indeed I am haunted, by my first experience with that fly.

What struck me on my first cast was that, when twitched, the legs would fold back against the body by the pressure of water flowing along the sides of the fly and, when the forward momentum stopped, they would pop out again.

Enthralled, I cast again because I wanted to observe the way the legs realistically opened and closed when twitched.

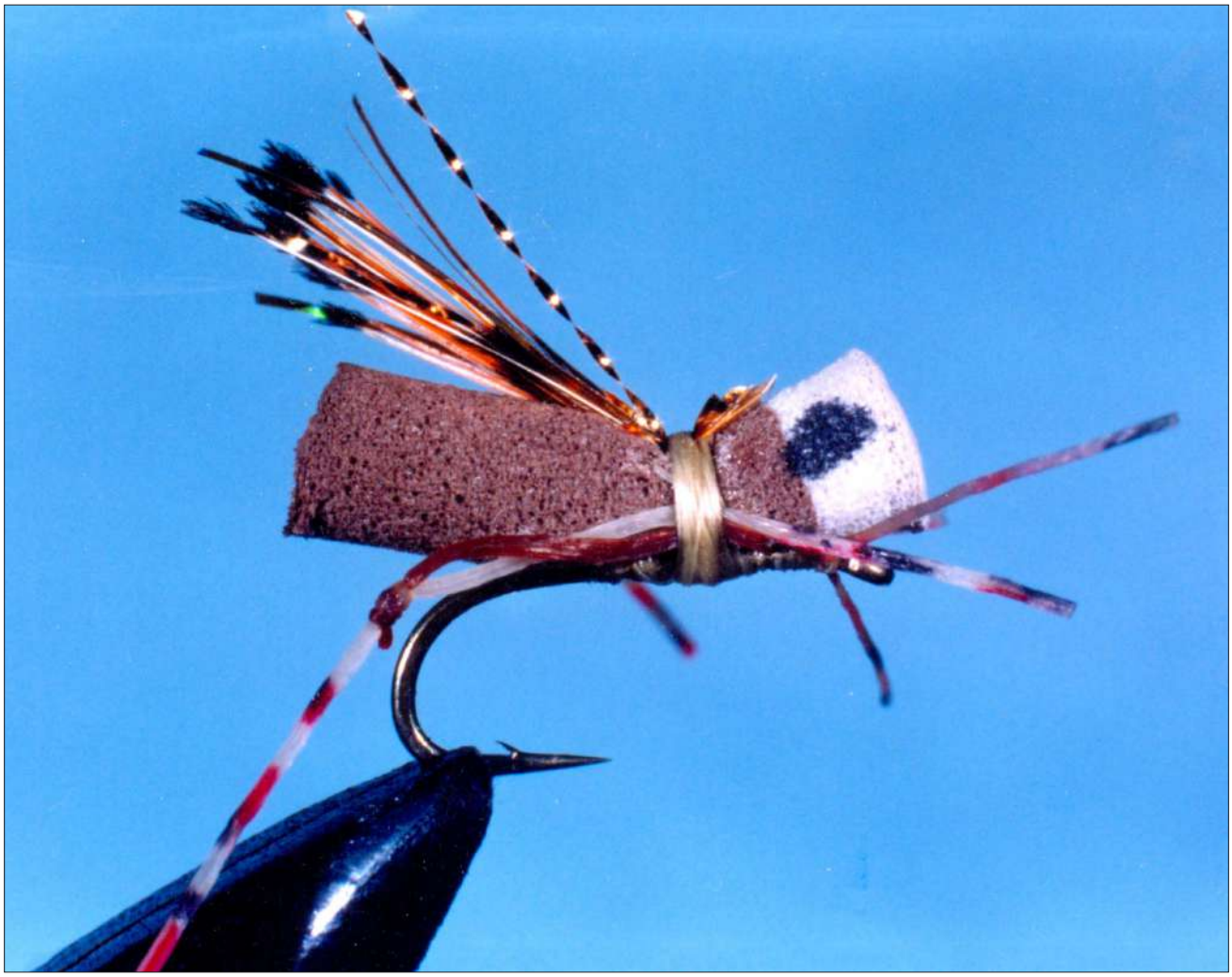
In a heart-stopping moment my reverie was interrupted when a giant head emerged, the hopper was inhaled in a split second and my 4x tippet was snapped in a heartbeat.

I often returned to that spot in subsequent years - without success - but the sight of that big head breaking the surface and then snapping my tippet, still lingers with me.

Hopper body material

What charted the evolution of my hopper design was, in the main, changes in materials – foam rubber for the body, latex rubber leg materials, plastic wing materials. And finally, because it substantially increases leg movement, the idea of counterweighting flexible materials from CDC to rubber strands with droplets of Loon Knot Sense, a design approach which came from split cane master, Stephen Boshoff.

The genesis of what became known locally as ‘Ed’s Hopper’ was the introduction in 1990 by Tony Skilton of Orvis of its foam rubber ‘Quick Sight’ ant bodies which had the bigger, rear section in black or brown and a white tip at the hook eye.



The Quick Sight Hopper used rubber strands of differing thickness for the legs

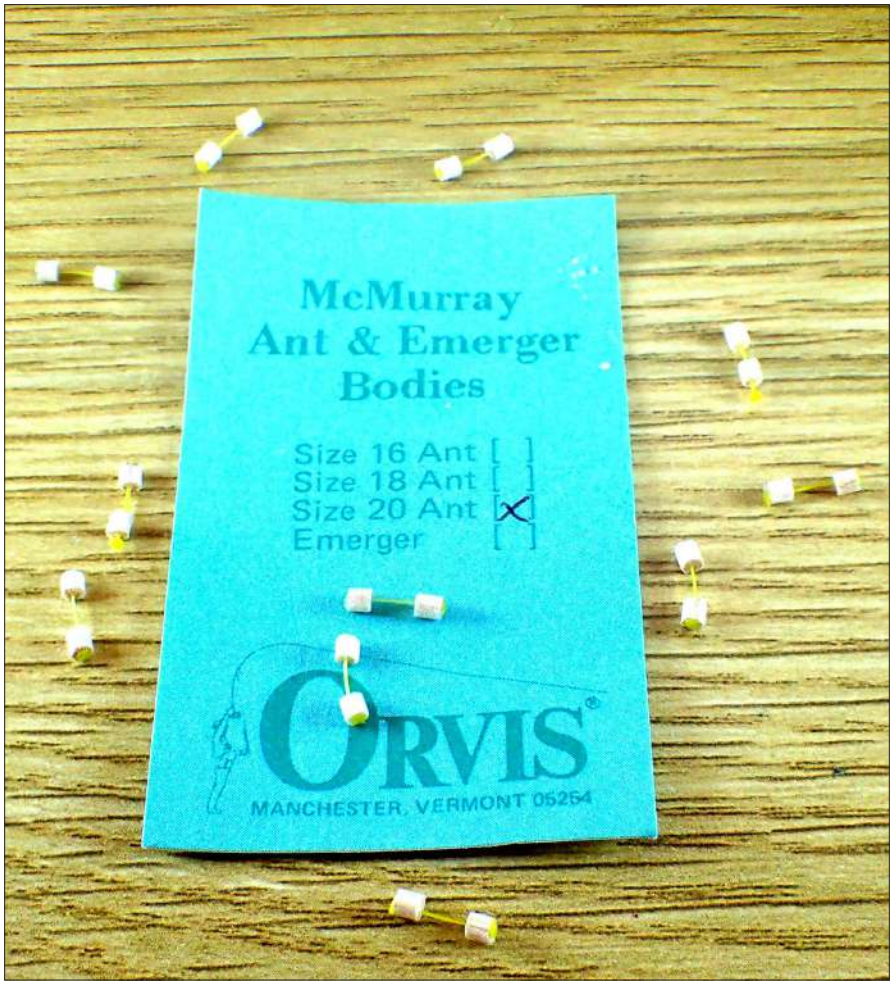
In the ant pattern, the cylinder is tied down tightly to the middle of the hook shank about a third of the distance from the white tip. Where the foam is compressed and narrowed at the tie-in point, a hackle is tied in to represent the ant's legs and a quick-to-tie, high-floating and easy-to-see ant pattern results.

On big rivers in the American west such as the Madison, several very effective hopper imitations such as the Madame-X and Turck's Tarantula have evolved with a rubber leg tied in a V on either side of the hook shank.

I was struck by the thought that, by tying a leg, in similar fashion on either side of the Orvis Quick-Sight Ant body and adding a Bredbo-type wing, I would have the basis of a possibly-effective hopper pattern.

What further influenced my approach was Art Lee's assertion in *Fly Fisherman* magazine that the McMurray Ant is the greatest dry fly ever invented. It was created in the nineteen sixties by Ed Sutryn of Pennsylvania and named after the town in which he lived. It proved so deadly that Sutryn patented the fly.

It uses two pieces of balsawood connected by a piece of nylon mono.



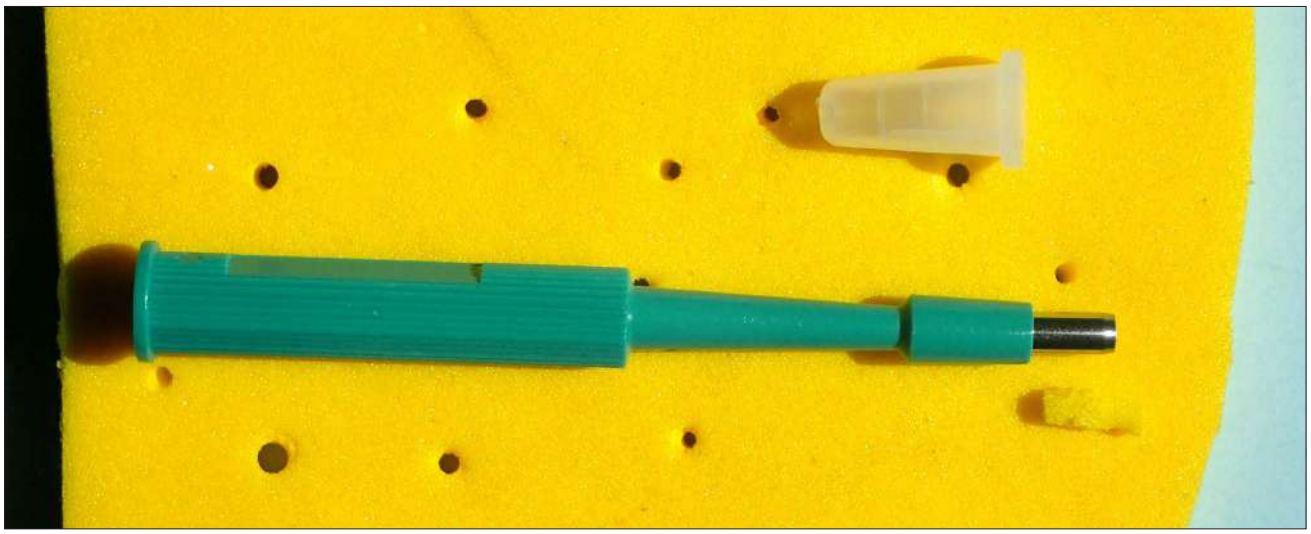
(L) Ed Sutryn's McMurray Ant bodies as marketed decades ago by Orvis

I realised that if I used this principle but with foam rubber – cutting the solid cylinder into two pieces and mounting the smaller piece protruding over the hook eye and the rear, bigger piece as an extended body projecting slightly past the hook bend - I would be able to tie hoppers down to size 18. Buoyancy was improved because the foam rubber sections were now above the heaviest sections of the hook, the eye and the hook bend. This created more space for the tie-in points of the rubber legs and the golden pheasant neck feather.

Initially I used foam rubber cylinders extracted from a yellow camping mattress with a leather punch which is used for creating holes in belts.

You can see an internet article on this using the key words: 'Tom Sutcliffe + Tying Ed Herbst's Hopper'

Today I would use biopsy punches which are available from your local pharmacy. This approach became redundant for me, however, when I discovered Larva Lace Foam Rubber and, more recently, when Hareline introduced Drew Chicone's Fettuccine Foam - thin slices of square 4mm foam rubber which can be stretched to further reduce its diameter.



A biopsy punch – which your pharmacist can order for you – on a piece of camping mattress foam rubber

The Gunville Drill bits from Upavon allow you to produce these foam rubber posts in six sizes and the You Tube Clip from Fly Fish Food provides useful instruction.

These foam rubber posts can be "waffled' to add contrasting colours – see the You Tube clip 'Hatching foam pupa - Daniel Bergman'

Here are the two quotes which influenced the leg design of my pattern:

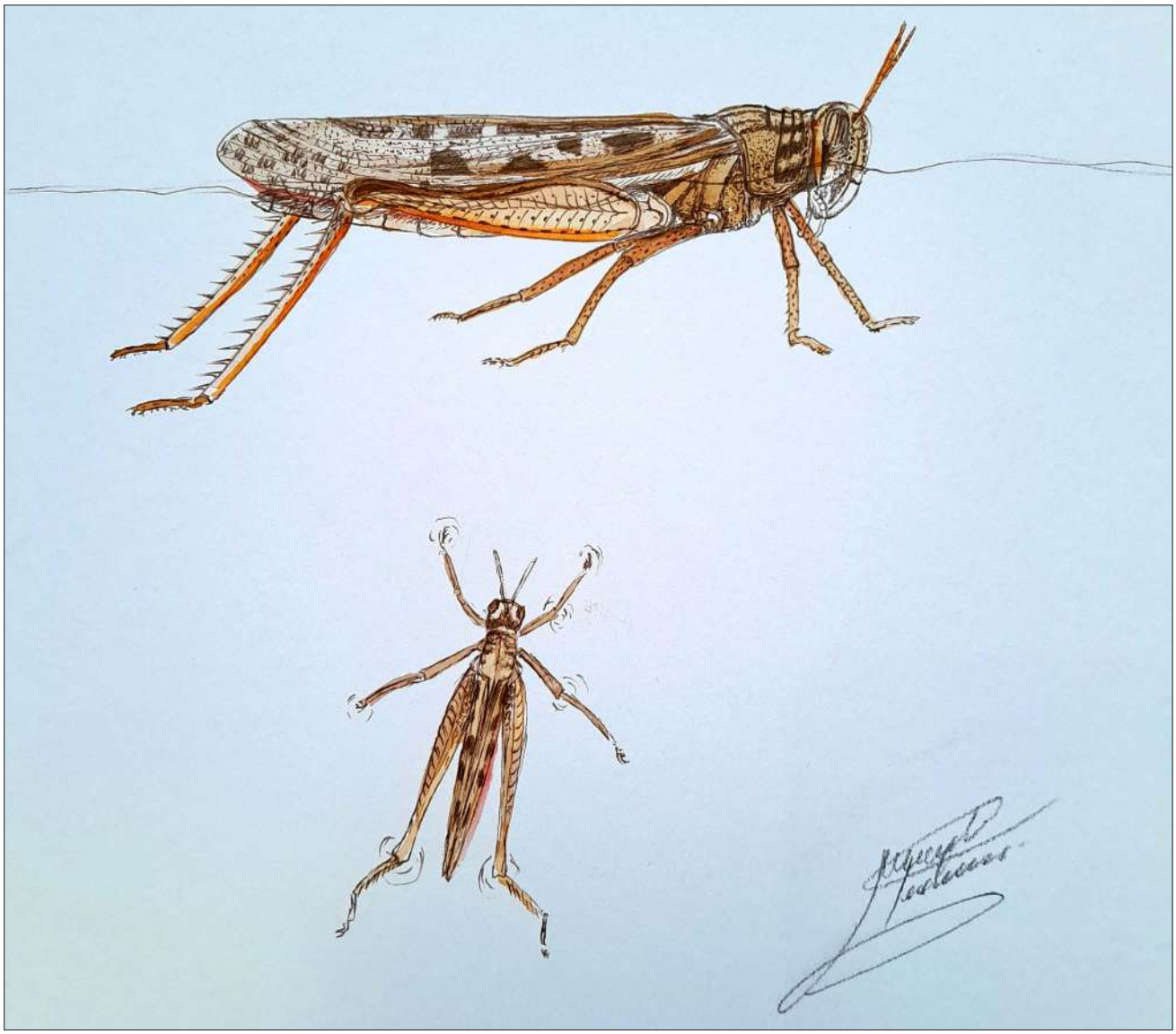
'I once lay on the bottom of a stream and had someone toss live grasshoppers onto the surface. Every hopper that came by had its legs protruding through the surface. For this reason, I now only use hopper patterns that have legs.'

Presenting the Fly – Lefty Kreh (Lyons Press, 1999)

'Those big hind limbs push well away from the body and become a prominent feature. When seen from underwater, the distinctive angle of these big kickers make the insect look bow-legged.'

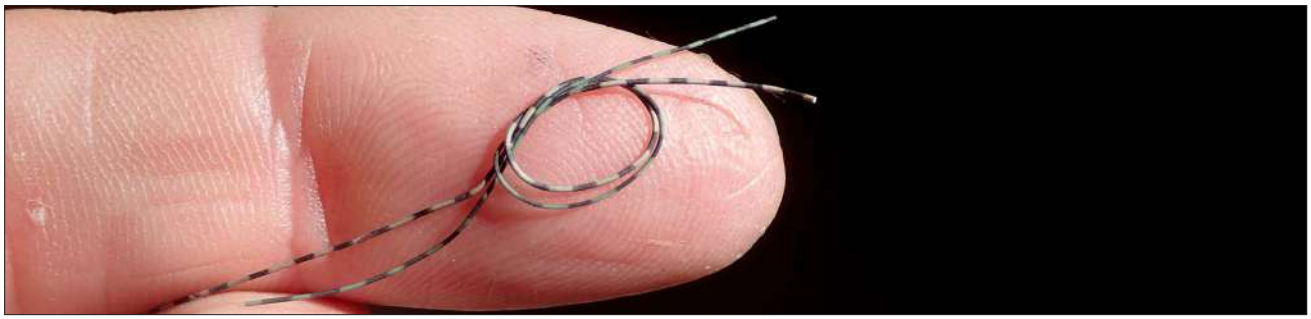
Designing Trout Flies – Gary Borger (Tomorrow River Press, 1991)

Hoppers have a thick upper leg which projects sideways while the lower, thinner portion of the leg points downwards.



The body profile of the hopper in the water – aside from the body, the dominant element is the splayed legs – Illustration by Marcel Terblanche

To replicate this, I coupled two strands of rubber of different thickness and connected them with an overhand knot. This doubled rubber is then tied in at the junction of the wing and the body. I cut one strand of the thicker rubber away at the knot to create the hind leg and another piece of the thicker rubber away at the tie-in point to create the foreleg.



Combining rubber strands of different diameters facilitates the creation of a hopper imitation leg which mirrors the thick/thin profile of the insect's leg

Today one has a wide range of latex rubber legs from which to choose.

In trying to reduce the hook size of my hopper, I was encouraged by these two quotes, one from Peter Leuver in Australia and the other from Harrison Steeves and Ed Koch in the USA and I believe they make a compelling case for smaller sizes when it comes to Lilliput Water hoppers:

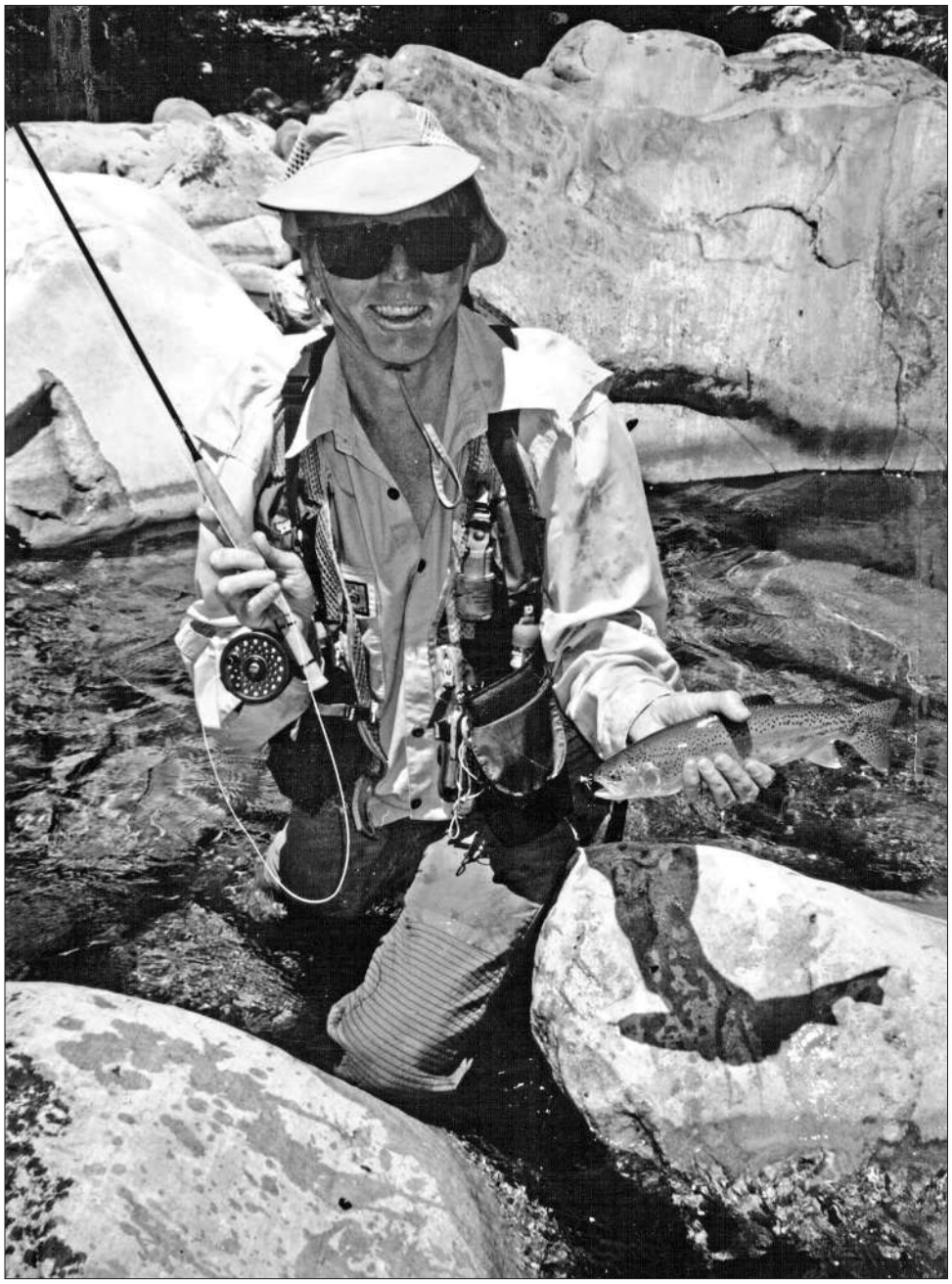
'I've tried nice big hook sizes when big juicy hoppers were bounding onto the water's surface but the smaller sizes always out-fished the bigger sizes. Number 14 seems to be the optimum size.'

Fur and Feather – Peter Leuver – (Kangaroo Press, 1991)

'Many of us have found that the smaller hopper and cricket patterns out-produce the larger ones in many instances, so don't be afraid to try some of these little guys in size 14 and 16. Immature forms are quite small and imitations can frequently be the fly choice of the day.'

Terrestrials – Harrison Steeves and Ed Koch – (Stackpole Books, 1994)

The latter title is available through Google Books and the point made by Steeves and Koch is important because the hoppers go through four to six moults before reaching maturity in late autumn. The smaller, infant hoppers with their distinctive silhouette will thus be accepted by trout without reticence or suspicion.



The foam rubber terrestrial imitations are quite top-heavy and, if tied on light-wire hooks, they tend to land on their side.

What has greatly facilitated the tying of such mini-hoppers was the introduction of thin but strong gel-spun polyethylene threads such as 20 denier Semperfli Nanosilk and 10 denier Textreme Extreme thread which enable one to tie in materials on small hooks without creating bulk.

(L) The trout that took my hopper pattern weighed more than my Orvis One Ounce fly rod. Photo by Tom Sutcliffe

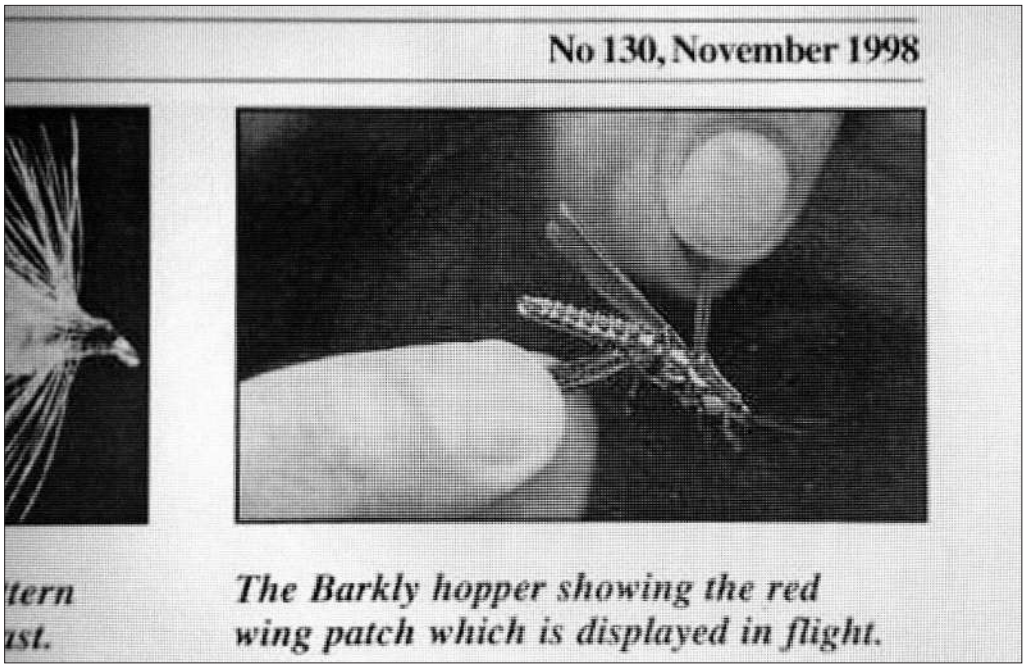
The evolution of the Ed's Hopper

In 1998 I fished the Bokspruit stream in Rhodes with one of the first Sage SPL O-weights to reach these shores.

Two farmhands and their dogs arrived and stopped to watch me. I asked if they would like some fish for the table and they nodded enthusiastically. Fishing the head of a large pool and hardly moving my feet, I hooked seven fish and landed five in about a dozen casts with my new hopper.

Tom Sutcliffe releases a rainbow trout which was deceived by the author's grasshopper imitation

I think the fly was so successful in the North-Eastern Cape because its shape and silhouette are instantly recognisable to trout in those rivers which flow through grass-covered valleys. About forty years ago Ron and Robin Moore were fishing the upper Rifle Spruit on a farm they then owned in Barkly East. The way the light fell on a pool enabled them to see each trout clearly and they experimented with a variety of flies. The overwhelming favourite to which the fish came again and again was a Parson's Glory, a New Zealand Matuka pattern with a tan body and wing and a tail of red hackle fibres.



(L) A scan from the 1998 issue of Piscator

Their assumption was that the fish took it for a "Barkly Hopper" the local grasshopper which displays a vivid scarlet flash on its legs and, in some species, in the wings.

Several South African hopper species, predominantly tan in colour, have a flash of red in the wing or the leg

I accordingly started adding two pieces of red Micro Krystalflash to the top of the golden pheasant tippet wing which made the fly a lot easier to follow in the drift.

Fishing my hopper with the Orvis Ultrafine 2-weight and the subsequent 'Ought Weight' Sages provided some memorable days for Tom Sutcliffe and I.

Tom described his first experience of the hopper in the August '98 issue of the FOSAF magazine *Flyfishing*:

'***On the other side of the Naude's Nek pass, near Maclear, I fished the upper waters of the Pot after joining up with Ed Herbst and Kim Visser, owner of Fly Fishing Adventures. Eddie had raved about this stream and a day or two earlier he claimed the best fishing of his life on it, taking about 60 trout on a new foam-bodied hopper pattern.***

'It's a quick, very clear river in its higher reaches, flowing across a glittering bed of gravel and pebbles, and it's stiff with diamond-bright rainbows. Trying Ed's hopper on my new Sage 0-weight, I took trout from this pretty place with such uncommon certainty and precision that for a short while I was at risk of believing I had at last mastered fly fishing, a dangerous conviction, I've learned - always as fleeting and as transitory as those ethereal mayflies that hatch in the lambent light of a late summer evening.

‹Every run the hopper slipped through rose a fish, and it rose them in the shallows and in the deep pools and against the banks, in the tails of runs and the necks of the pools, everywhere except from the grass alongside the stream, and even then I half expected a fish to leap out after the fly. Some rod, some river, some fly'!

The hopper provided me with an almost cathartic release from the dead—drift strait-jacket. I usually fished it upstream but, instead of lifting off to cast again when drag set in, I'd start twitching it and the drag became an ally instead of the enemy of success it is usually perceived to be.

Getting there … The Pendulum-Leg Orange Hopper with mottled plastic wing. The current version has Micro Krystal Flash antennae ripped with Loon Knot Sense resin

Because that is how a hopper behaves. It lands in the water with a splat and then, stunned, floats downstream for a while without moving. Thereafter, as if suddenly awakening to the danger, it kicks frantically for a while towards the bank before running out of steam and floating listlessly for few metres before trying again.

The hopper is a wonderfully forgiving pattern. It matters not if your cast is indelicate – hoppers normally cause a ruckus when they land on the water. It matters not if your cast is off-target – you simply twitch it to your target area.

You also don't have to fish it upstream. It is just as successful fished across or downstream because, as I have said, when drag sets in you just fish it for what it is - a small popper.

The hopper proved most effective after 10 a.m.

At sunrise hoppers turn sideways towards the light, foraging more actively as their body heat increases and becoming sluggish if the sky clouds over or a cold wind starts blowing.

While it was the Australian use of golden pheasant tippets for the wing that influenced my hopper designs, I was to discover that what became known as Ed's Hopper also influenced Australian thinking.

If you do an internet search for 'Nobby Hopper + Fly Anglers Online' you come across an outstanding article on the evolution of hopper design in Australia which contains the following passage:

'Dan's Hopper, or the now-called Nobby Hopper, made its way to South Africa. As in Tasmania, the pattern was too big to represent local hoppers. A resourceful South African fly dresser made the fly smaller, but there was one important change to the legs. He put a knot in the legs making that dog-leg or grasshopper-leg shape, now commonly associated with many hopper patterns. It was found that this method of tying the legs had two important attributes. First, the legs acted like outriggers, making the fly more stable on the surface. Second, from an anglers and a fish's point of view, it was much more realistic. The two red legs poking into the surface at the rear end of a

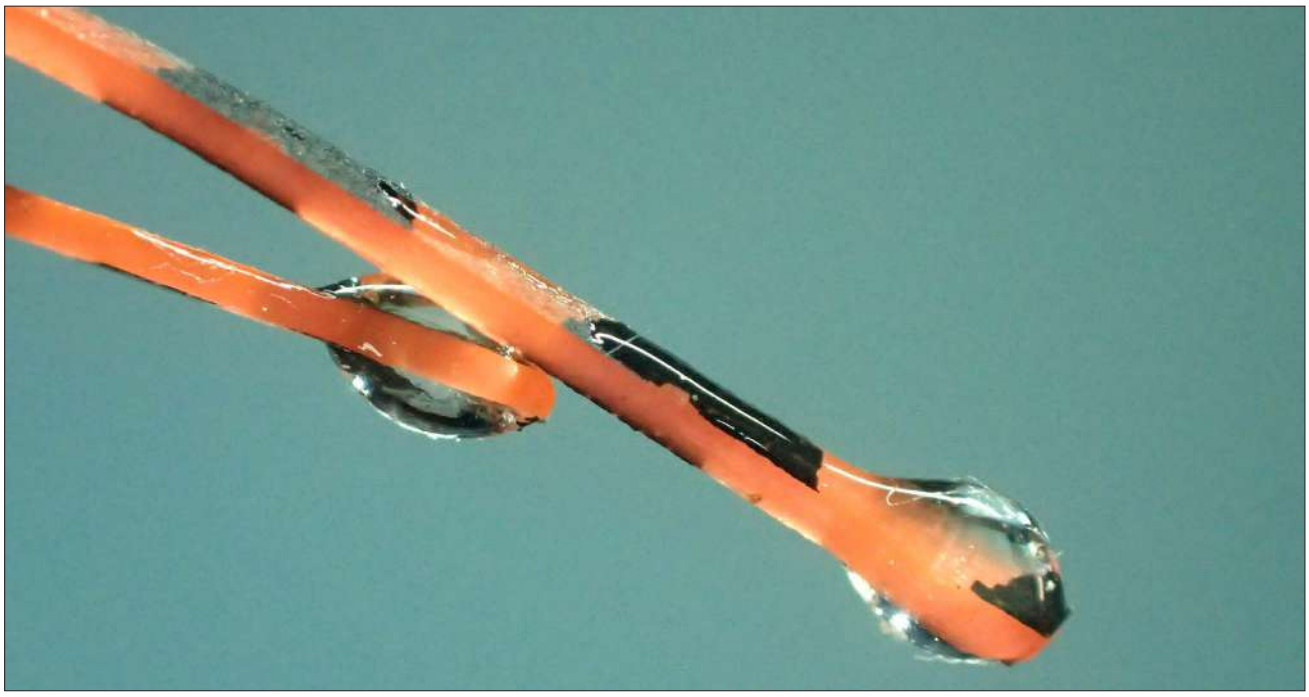
hopper seems to be a powerful trigger used on many of today's successful hopper patterns.

'The South African version, with its knotted legs, made its way back to Australia. It was discovered in a Melbourne tackle shop by Andrew Braithwaite. Andrew re-introduced it to David Scholes as the South African version of the Nobby Hopper.'

Platon Trakoshis, a most talented fly angler and fly designer and a columnist for *The Mission* magazine provides some beneficial tweaks in his 2025 article headlined ***'Ed's Hopper – Step-by-Step Fly tying'***

Orange rubber legs

The experience on the trout streams near Cape Town is that orange rubber legs add significantly to the success of hopper patterns, as does twitching the fly during the drift to activate the legs.



An early version of the Pendulum Leg tip – on later versions, purple glitter dust was added for trout in tannin-stained streams

Gordon van der Spuy - aka the 'Feather Mechanic' - can testify to the importance of the twitched hopper. From a high vantage point, he watched a friend fishing a hopper beneath him. The hopper would drift un-assailed until he twitched it – and then a trout would immediately arrow to the surface.

There's an interesting quote on this by Al Troth in one of my favourite books, ***Wisdom of the Guides*** by Paul Arnold (Frank Amato Publications, 2005)

Q: "Do details on a fly, like legs on a hopper, really make any difference?"

Troth: "Hard to answer. Sometimes they sure do. I remember in 1986 we had a fantastic hopper season on the Bighorn River. In 1983 I'd originated a fly called the MacHopper which had rubber legs. But the first occasion I had to really use it was in 1986 during that great hopper fishing on the Bighorn. I was fishing with my son, Eric. We're coming down one of the first runs just below the put-in place at the dam, and he dropped the fly out. I can still see the thing happening. A nice big brown came up and hung under the fly. I said, 'Shake the rod tip'. He shook the rod tip and the legs twitched a little bit, then POW, gone. We had great luck twitching those rubber legs on that trip. But the trout in that river had been fished over so hard that they were looking for something to authenticate the naturalness of the hopper pattern. We had fantastic luck with that pattern the rest of the season."

The change to camping mattress foam rubber saw a separation of the body segments to create more space for the wing and rubber leg tie-in point. Photo by Peter Brigg

In his wonderful book 'Call of the Stream' Peter Brigg recalls that in 1996 I sent him one of my hoppers - illustrated above - which he still has. It was the version made from foam rubber segments extracted from a yellow camping mattress with a leather punch.

His experience replicates what Gordon van der Spuy and Al Troth experienced:

'Ed Herbst once explained Leonard Wright's 'three-tumbler-lock' theory to me. It goes like this: when a fly drifts into the trout's window of vision, it will notice a familiar shape, size and perhaps even colour – it looks different to the inanimate twigs, leaves and other debris. You now have the trout's attention and it watches more closely, identifying other recognisable features like the wings, legs or tail – tumbler number two clicks into place. The third tumbler clicks into place when the fly-fisher gives the fly a twitch. At this point the trout's mind is made up that this is not just something recognisable, but something that's alive. The next response needs no explanation except to say it's what we set out to do in the first place – deceive the trout.

'I recall an incident a few years ago while fishing a long, slow, deep run in the iNgwangwane River in the southern Berg. I had cast a hopper onto the edge of the current seam near where the water cascaded in. The fly drifted down towards me, then almost in ghostly fashion, I saw a decent trout appear and hang a few feet below the surface, its focus clearly fixed on the fly. It had obviously recognised what it felt was a familiar food source but was still uncertain. I slowly drew in the slack line and then twitched the rod tip. The imitation rippled the surface, as a struggling hopper trapped in the surface film would do. The trout's response was fast – in a split second it rose, sucked in the fly, turned and dived back into the depths. I felt its weight and the rod bent in response. After a short fight I held it in my hand, a beautiful 16-inch rainbow cock fish. It proved that movement is an irresistible trigger.'

Peter's observations to me on hopper behavior when they first land in the water (below) are informative when it comes to hopper design. Keep in mind that hoppers breathe through spiracles – holes in the body which transmit oxygen to the trachea which distributes it to body tissue. So, they would breathe in water which would increase the sense of panic:

'The first reaction when the hopper lands in the water is its feeble attempts to free itself by kicking and the occasional fluttering of its wings as it tries to lift off and fly. The legs are useless for swimming and end up below the surface much like your new pattern. I'll be introducing those to my

hoppers in future. When it uses its wings, you get that hint of the orange colour. These attempts to reach safety don't last long, the back legs end up slightly splayed and below the surface and it also folds the wings against the abdomen. This is where the narrow profile, blunt head and legs are prominent as it slowly drowns, but continues to float on the surface.

'The most vulnerable stage is clearly during the first period - the plop, kicking back legs and wings open. It's once again the attraction of action and movement. I have watched many dead hoppers drift without any interest from the trout - a twitch changes that.'

My experience is that water flow past the hind leg compresses it against the body when twitched and it then pops back into its original position when the uninterrupted drift resumes and I think this opening and closing movement could be a significant trigger.

This suggests that it might be beneficial to eliminate the front leg so as to enhance water flow to the back leg.

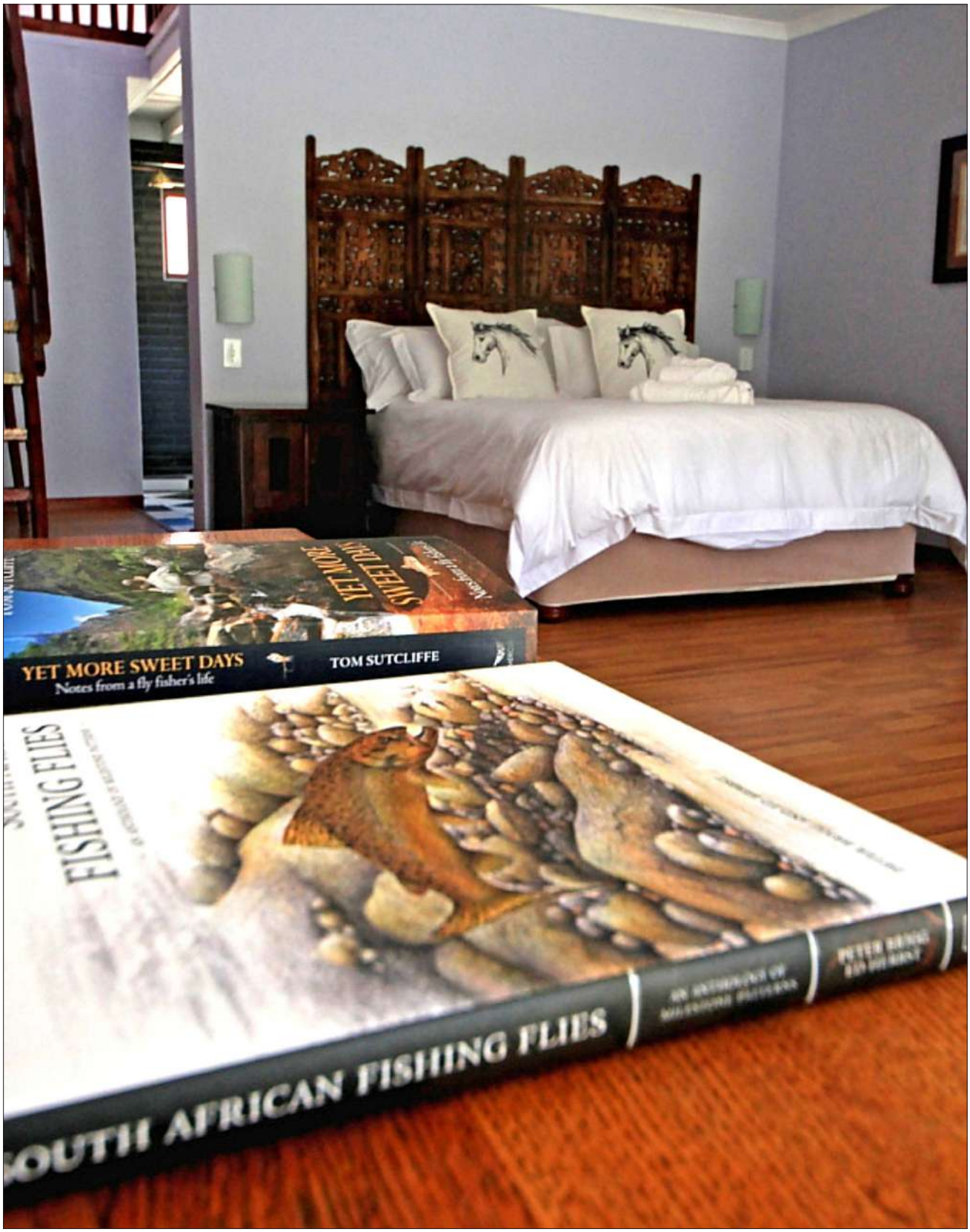
You might want to conduct a swimming pool test to determine whether that is a viable proposition.

I didn't want a fly named after me and I tried to give this one various names, as the 'Terrestrials' folder in the Cape Piscatorial Society's articles archive will prove – 'Orvis Hopper' when the Ultrafine 2-weight fly rod appeared on the market and 'Ought-Weight 'Opper' when Sage introduced its Whisper Rod version.

Catching a trout on a hopper imitation on the Sage Ought-Weight in 1998

In vain.

There is even a room at Branksome farm guest house on the banks of the Sterkspruit River in Barkly East named ‘Ed’s Hopper’.



The ‘Ed’s Hopper’ room in the Branksome guest house in Barkly East

Work on a size 14 small stream hopper design which is quick to tie, easy to cast, buoyant, visible in the drift, has a lot of leg movement and pops well when twitched, continued.

Ideally, as little of the foam rubber body as possible should extend beyond the hook bend as possible to enhance hook-ups.

The hopper's wing, when it is on the water, sheathes the body and the tip of the wing protrudes slightly beyond the abdomen. In silhouette against the sky there is no separation of wing and body which distinguishes the majority of the majority of current bullet head deer hair hopper designs. These designs, more closely resemble a rubber-leg caddis than a grasshopper.

Peter Brigg, however, points out that a that a deer hair wing incorporating Krystalflash helps track the hopper in the drift.

A golden pheasant tippet wing overlaid with two strands of micro Krystalflash or red wedding organza would seem to be the ideal compromise, being less wind-resistant than a poly yarn or deer hair design and its track record in Australia over decades shows it to be extremely effective.

(L) The yellow wing on this grasshopper is well matched by the colour of the wing of golden pheasant tippets on the first 'Ed's Hopper'. Photo Marcel Terblanche

The choice of hook is crucial. It must be heavy enough to anchor the bulky and top-heavy fly in the water ensuring that it lands upright on every cast, but it must be light enough to ensure that the hopper stays afloat all the time.

It must also have a gape which is wide enough to facilitate successful hookups and, at the moment, the Tiemco 1000SP-BL seems to me to be the best compromise.

We have seen two significant design changes in hopper imitation in the past half century.

In the early 1960s Ernest Schweibert and Ed Shenk added a wing made from a turkey feather segment to the Muddler Minnow creating what became known as the Letort Hoppers.

Two decades later, Doug Swisher and Carl Richards co-authored the immensely-influential 'Selective Trout.' and introduced an adult stonefly imitation, the Madam X.

It combined a bullet head design using deer hair in the style pioneered by Keith Fulsher in his

Thunder Creek patterns which used buck tail to create a minnow profile.

To this they added rubber legs tied on either side of the hook shank in an X shape.

The head/wing shape combined with rubber legs defines the silhouette of modern hopper imitations and foam rubber tied the hook shank now forms the body in most popular patterns.

As I see it, this commonly-used design resembles a caddis more than it does a hopper when seen from beneath - but it does not matter. The Madam X is easy-to-tie, and the deer hair wing adds buoyancy and makes the fly more visible in the drift.

Furthermore, the horizontally-jutting rubber legs also add to the way in which the fly is supported in the water, facilitating its buoyancy.

Adding two strands of orange Micro Krystal Flash to the top of the deer hair wing does not significantly add to the weight of this fly, but does significantly improve visibility.

I felt, however, that a more realistic silhouette could be achieved, a fly that looked like grasshopper rather than a rubber-leg Elk Hair Caddis.

The story of how a balsawood ant inspired a foam rubber hopper is well documented in the 'Terrestrials' folder of the Cape Piscatorial Society's articles archive.

Hopper body colour

'… hoppers range through an entire spectrum of colors, but we tend to tie them predominantly in yellow. Vince Marinaro may again have something to do with this, as he is very adamant that the only color for a hopper should be yellow. His advice is to "use nothing but yellow imitations, a butter yellow or maize color". We have, however, had a great deal of success fishing hoppers in colors other than yellow – brown, tan, green and orange, to name just a few.'

Terrestrials Harrison Steeves and Ed Koch (Stackpole Books, 1994)

A further thought on hopper design is found in ***A.K's Fly Box*** (Lyon's & Burford., 1996). Best found that hoppers in high altitude streams were sometimes green or tan and that fishing the relevant colour played a significant role in catch rates.

To hedge my bets, I use fluo green UCT 70 thread at the tie-in point of the legs and the wing.

Hoppers have prominent eyes and it is easy to create a black eye on the foam rubber with a permanent marker.

An evolution of the original design using tan Fettuccine Foam rubber includes an orange section in the leg because orange is a proven trigger - I know that because there were probably hundreds of occasions when trout frustratingly rose to my orange yarn strike indicator, ignoring the little sunken beetle drifting beneath it. Golden Pheasant tippets have always featured as the wing in Australian hopper patterns and orange rubber legs have proved to be an essential trigger on the trout streams near Cape Town. Orange Micro Krystal Flash or wedding organza fibres on top of the golden pheasant neck feather wing, add a further highly-visible orange feature to the fly.

Based on the experience of A K Best, green hoppers, if prevalent, are successful in high altitude streams in the USA but there are, according to Gary LaFontaine's 'Theory of Attraction', reasons why, under certain conditions, orange and green flies are successful based on ambient light. On tree-lined streams green flies do well and at sunset, orange flies excel.

So, what I now call the Fettuccine Hopper has orange micro–Krystal Flash on top of the orange wing and an orange section in the cranked rubber leg. The tie-in point uses fluorescent green UTC 70 thread. It lacks front legs to improve water flow past the body, this creating greater activation of the all-important rear legs. This pattern was succeeded by the Orange Hopper which has a more realistic silhouette.

The Fettuccine Foam Hopper – the product of three decades of fly design evolution

Fettuccine Foam Hopper success on the upper Bokspruit, Gateshead farm – Photo by Sean Vosloo

The 'Light Bulb' hopper leg

As described in previous chapters on the Light Bulb Spider, the Halo Hackle Klink and the Slip Knot Emerger, Stephen Boshoff's idea of creating a cantilever effect in pliable materials by weighting the tip with drops of UV resin is, in my opinion, a game-changer which will, over the years, become as significant a design concept as Russell Blessing's creation of the Wooly Bugger.

Stephen Boshoff – originator of the 'light bulb' concept in fly design

I added to the visibility of these 'light bulbs' by mixing glitter dust with the Loon Knot Sense resin on both rubber legs and antennae made of Micro Krystal Flash.

The Orange Hopper

Once again, the appearance on the market of new materials advanced the search for a more realistic GISS-factor and improved buoyancy in a hopper imitation.

A few years ago, the Larva Lace company in the USA produced a soft Evazote foam rubber for fly tying which had a subtle glisten. It was then was sold to another company whose main focus was bass fishing. The subsequent Larva Lace was stiffer than the original.

I have now found the ideal substitute locally. Shown here is Wapsi Evazote Fly Foam in 'Salmon Fly Orange', code WPF 8275, which is made in Taiwan. It is soft and elastic, has a subtle sheen and is semi-translucent which could be important against our bright, southern hemisphere sky. The other, differently-coloured, Evazote foam rubber sold by Wapsi seems harder and stiffer.

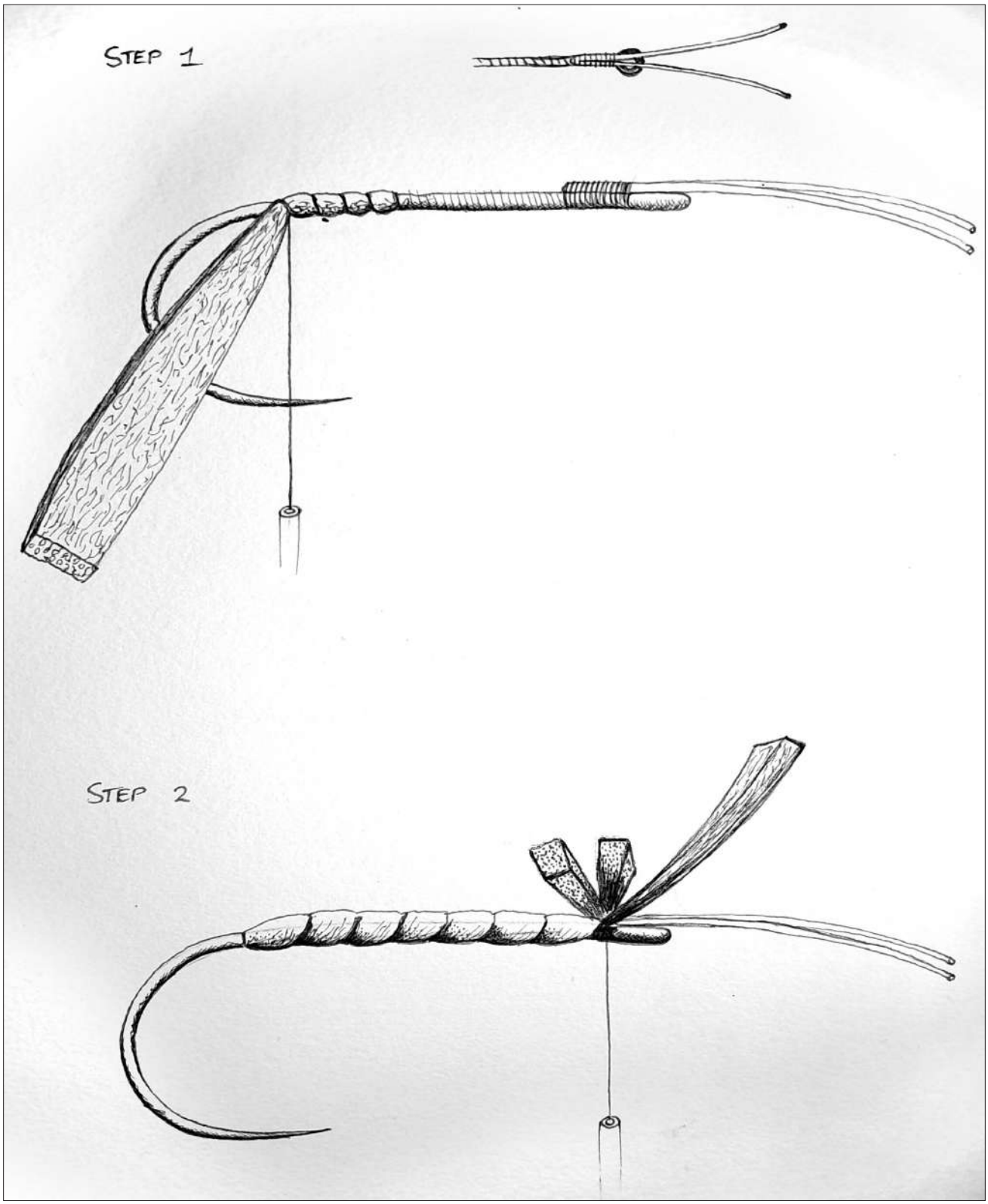
The Wapsi foam rubber favoured by the author for his hopper pattern

In my opinion the development of hopper imitations has been in stasis for decades. The only major change from the original deer hair bodied Madam X, originated some 40 years ago on Montana's Bitterroot River by Doug Swisher as a stonefly imitation, being the adoption of a foam rubber body.

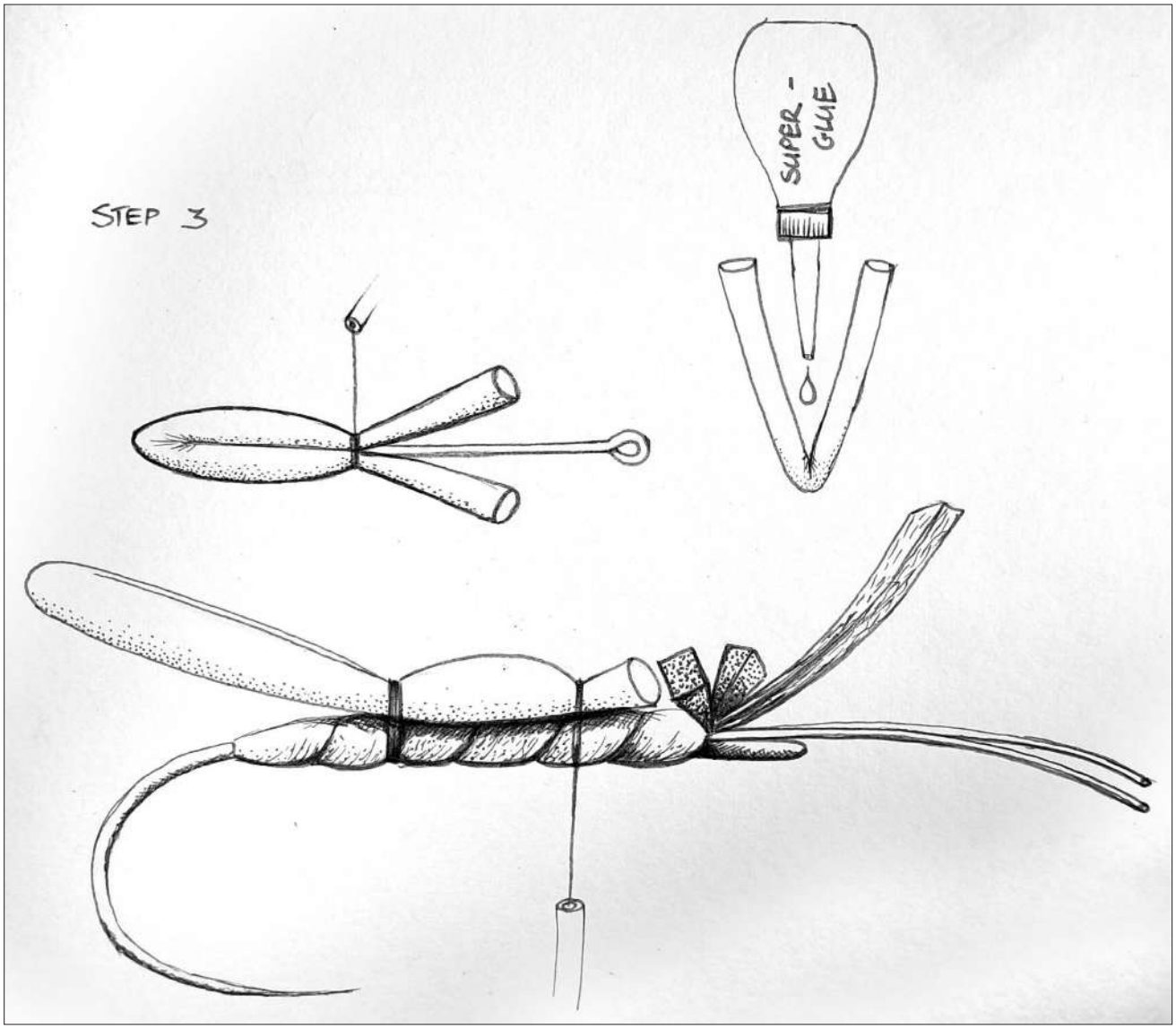
(L) The start of the Orange Hopper body construction – the creation of the abdomen section of the fly

I think the big breakthrough for

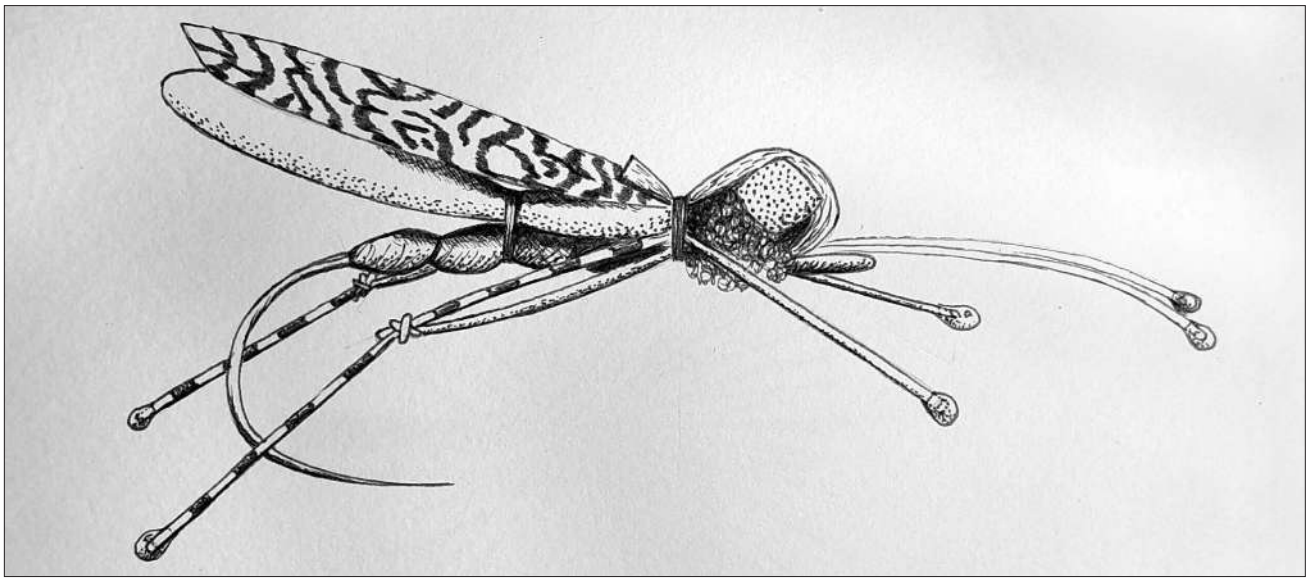
me was the realisation that if I superglued a thin strip of this soft and pliable Wapsi foam rubber into a U-shape, I could place it on top of the #12 TMC 101 hook so that it protruded fractionally beyond the hook bend, creating buoyancy without reducing the hook gape. Ahead of that, I could create a foam rubber head with Fettuccine Foam rubber which emphasised the insect's prominent eye. Beneath this doubled body, the hook shank could be covered with the same material, creating an all-foam rubber body, possessed of excellent buoyancy.



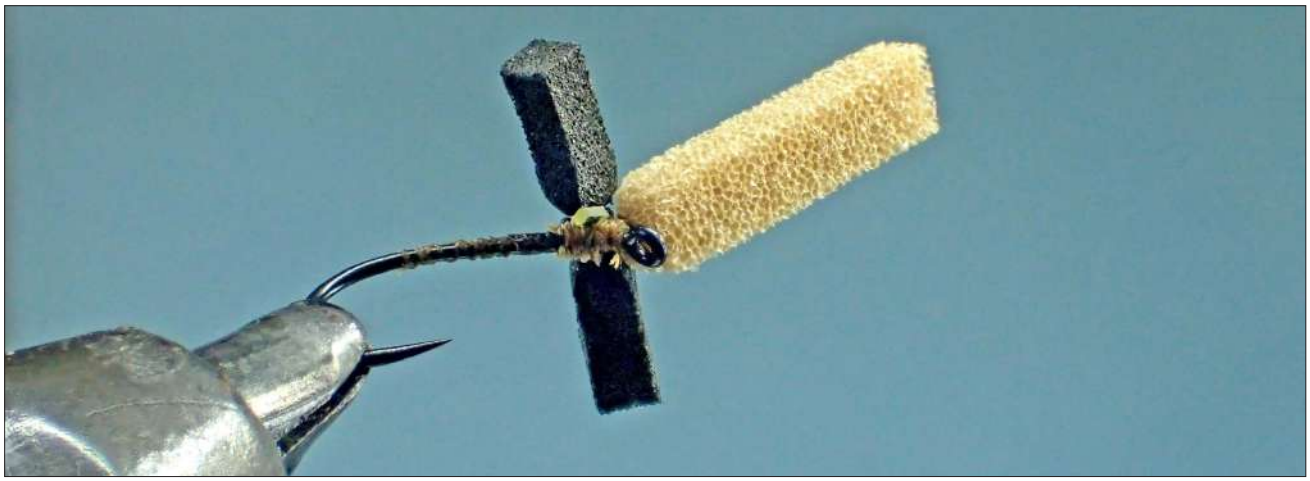
Three illustrations by Marcel Terblanche of how he ties the Orange Hopper



The orange Wapsi foam rubber forms both the underbody and the 'abdomen' of the Orange Hopper



The final stage in the tying of the all-foam rubber Orange Hopper as sketched by Marcel Terblanche



The first stage of constructing the head of the Orange Hopper using stretched Fettuccine Foam strips

The final stage of the head and eye construction of the Orange Hopper using stretched Fettuccine Foam in two colours

Hoppers drift low in the surface film with the heavier abdomen submerged. The wings are not held aloft, they sheath the body, so the choice of mottled and translucent Wapsi Thin Skin plastic material for the wing was obvious.

The Wapsi Thin Skin material works well to mimic a grasshopper wing on the Orange Hopper. Photo by Marcel Terblanche

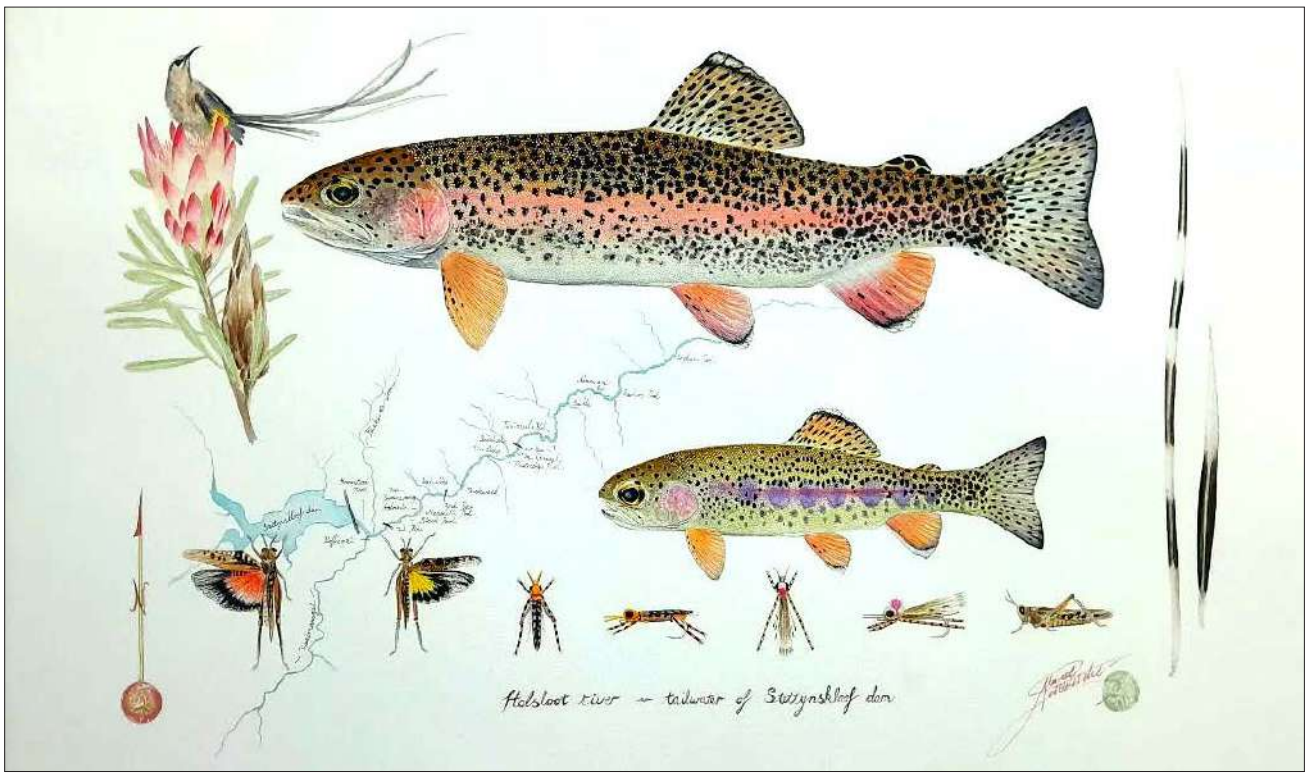
(L) Matthew Sephton fishing the Orange Hopper on the Three Drifts stream on Pitlochrie farm in Barkly East. Photo by Wieke Langner

I received a message from Matthew Sephton - @threedriftsfishing - while fishing the Orange Hopper on the Three Drifts stream on a beautiful Barkly East farm, Pitlochrie - visit their website.

'The hopper has been pulling even the largest most lethargic fish from the bottom and eliciting some serious interest.

'I caught 8 fish over 14 inches in 1 pool yesterday - they wouldn't leave it alone.'

A Three Drifts stream rainbow trout that took the Orange Hopper. Photo by Matt Sephton



Hoppers on the Holsloot stream near Cape Town. Painting by Marcel Terblanche

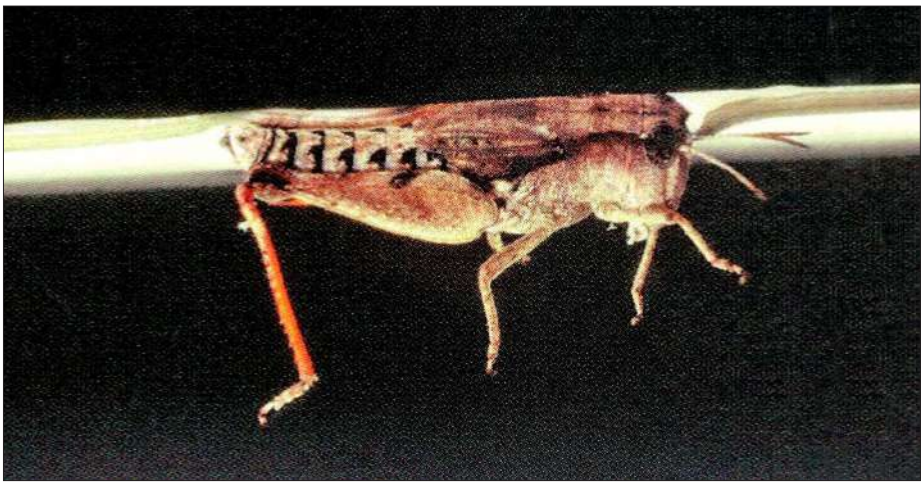
In the July 1986 issue of the American magazine *Fly Rod & Reel*, Gary LaFontaine wrote an article on hopper patterns and came to a fairly logical conclusion:

'But overall, the weighted Joe's Hopper was the deadliest of all hopper imitations. The angler wading upstream, drifting the fly naturally with the current, not only caught as many or more trout than he could with any surface pattern, but also fooled larger ones. The biggest trout, always the most cautious, seldom rose during a grasshopper bonanza; during the normal fishing days of summer, they might ignore all surface food but they still recognised one well enough to accept one drifting at eye level.'

The Sunken Hopper

'Finally, if trout are giving your dry fly the cold shoulder, put a slit shot on it and fish it wet. It isn't nearly as much fun, but even the most jaded trout can hardly turn up its nose at a drowned hopper at mouth level. **'Fish Food – Ralph Cutter** (Stackpole Books, 2005)

The Sunken Hopper was clearly an idea with which LaFontaine was pre-occupied because he subsequently wrote to the late Rick Keam, Australia's pre-eminent author on fly design and this prompted Keam to write a beautiful coffee-table book '*Dressed for Dinner*' in which he pays tribute to LaFontaine:



(L) A scanned photo from Rick Keam's book, 'Dressed for Dinner' which shows that a drifting hopper is semi-submerged

'This book began in the early 1990s at the urging of Gary LaFontaine. Gary was struck by an article I had written comparing his own observations of the occasional value of fishing a sunken grasshopper imitation on western US waters, and my similar experiences in Australia. There was nothing especially revolutionary in this. The dwindling few anglers who had grown up fishing live grasshoppers were aware that many did not float, but entered the water head-first and sank, sometimes catching more fish than any surface imitation.

'It wasn't until I started studying the float posture of grasshoppers that I realised how thoroughly the dominant parts of their image were submerged.'

LaFontaine again expressed his thoughts on this subject in one of my favorite books, *The Dry Fly – New Angles*, which was published in 1990 but he did not show a specific pattern – somewhat strange for someone who constantly experimented with new designs. All he did was add lead wire to successful contemporary floating hopper patterns.

Around 1990, LaFontaine was diagnosed with a slow, degenerative ailment, Amyotrophic lateral sclerosis (ALS) but, in the ensuing years, before his death a decade ago, he published two more books, one of them *Trout Flies – Proven Patterns* being a catalogue of his designs.

Wanting to leave a record he also collaborated with Al and Gretchen Beatty who published *LaFontaine's Legacy – The Last Flies from an American Master* several years after his death.

They remark that he wanted to cover all the bases and he even included an imitation of a house fly – but no sunken hopper …

The reason is simple, he simply weighted a floating Joe's Hopper which he tied in two versions: ***'One fly was wrapped with lead wire, heavily weighted for bouncing along the bottom; the other, wrapped only with a ribbing of copper wire, was a lighter pattern designed to drift high in the water column, less than a foot below the surface, like a freshly drowned grasshopper.'***

LaFontaine's hopper chapter in *The Dry Fly New Angles* provides outstanding analysis, but the chapter on grasshoppers and crickets in Ralph Cutter's fascinating *Fish Food – A Fly Fisher's Guide to Bugs and Bait* is also valuable:

'Finally, if trout are giving your dry fly the cold shoulder, put a split shot on it and fish it wet. It isn't nearly as much fun, but even the most jaded trout can hardly turn up its nose at a drowned hopper served at eye level'.

So, where's the mystery?

Well, given the endorsement for what seems a fairly logical idea by people like LaFontaine and Cutter, you would think that internet is flooded with video clips on how to tie such patterns.

It isn't.

Tim Flagler of Tight Line Productions has posted a typically excellent video of what he calls the 'Drowning Hopper' but, given its deer hair wing, I don't think a call to the NSRI will be needed anytime soon.

Rick Takahashi and Jerry Hubka list more than 150 hopper imitations in their encyclopedic 2014 book *Modern Terrestrials - Tying and Fishing the World's most Effective Patterns.*

Of these, only three are designed to sink and they are conventional hopper patterns with an added metal bead at the eye of the hook to assist the sink rate.

By far the best analysis of hopper design is found in the 1994 book, *Terrestrials – A Modern Approach to Fishing and Tying with Synthetic and Natural Materials by Harrison Steeves and Ed Koch.*

They, too, sing the praises of the sunken hopper but provide only one specific imitation – of a species of hopper which seeks refuge from danger by diving into the water where it can remain for

about nine minutes, walking along the stream bed. It is not a species which exists locally as far as I can ascertain:

'We have to this point discussed only the floating patterns, which are familiar to everyone. What about fishing a sinking hopper or cricket pattern? Is there any place for them in the fly box? The answer is a resounding yes. Gary LaFontaine wrote a wonderful chapter testifying to the effectiveness of the sinking hopper in his book The Dry Fly, but it has attracted little attention from the general angling public. Likewise, Ed Shenk has spoken on the effectiveness of the sinking cricket, but again most people seem to have passed this pattern by. Well, if anglers do not care to exploit these sinking patterns (or any other sinking terrestrial pattern), we'll just keep our little secrets and continue to chuckle all the way back to car, even if our wrists ache.'

Their review of historic and contemporary hopper imitations is trenchant.

They point out that drowned hoppers drift close to surface, vulnerable, visible but not bouncing along the riverbed and that when one lands in the water it prefers to kick itself to safety rather than fly away from the clingy water surface. What is not irrelevant is the fact that crickets, locusts and katydids all have a grasshopper shape and all will be eaten by trout if available. Here is their trenchant analysis of factors that contribute to the GISS-factor in a drowned hopper.

Size**: *'Many of us have found the smaller hopper and cricket patterns outproduce the larger ones in many instances, so don't be afraid to try some of these little guys in size 14 and 16. Immature forms of these insects are quite small and imitations of them can frequently be the fly of choice for the day.'***

Legs**: *'On a dead hopper or cricket, the muscles relax, and the legs trail well behind the body of the insect, more or less dangling limply in the current.'***

Eyes**: *'What really draws attention to the head of the insect are the eyes which are quite large in some species.'***

So, the challenge for me was to tie an effective sunken hopper using modern materials.

The materials used in tying the Sunken Hopper with Wapsi Thin Skin wing material and Chewee Skin body materials on the left. Photo by Jan Korrubel

I wanted it to be relatively small because in Australia, they have found the most effective hook size to be 14 but the adult hoppers I came across in Barkly East and Rhodes were about a size 12 and often had a flash of red in the legs or wings. However, once you started adding bead chain eyes and lead wire, size 16 weighted hoppers become more difficult to tie.

Rubber legs will create movement. That movement can be increased by using Stephen Boshoff's 'Light Bulb Legs' idea – a small blob of UV resin on the tip of the leg which creates a pendulum effect, increasing the droop of the leg and giving water currents more surface area to activate. The legs will incorporate an element of orange, a proven trigger on these flies.

Soft, Stretchable materials are a boon to fly tyers because, simply by increasing or reducing tension, you can control the dimensions of the fly and on this one I have used Hareline UV Chewee Skin for the body. In olive or tan it is ideal. You could also try Hareline's Scud Back, natural latex sheet or Veniard's tungsten sheet for the body.

The bead chain eyes are plastic because I want this fly to stay close to the surface and these are available in shops that sell Venetian blinds and curtain materials.

For the legs I have combined different thicknesses of barred latex legs, which are translucent, using orange and olive. They and the Micro Krystal Flash antennae are weighted with drops of UV resin at the tips to create a 'cantilever bounce'.

Here's my attempt at a somewhat different approach to hopper design and the goal is to get it to sink just a few centimeters below the water surface because that's what drowned hoppers do.

My first attempt to create a lightly-weighted, barely-submerged hopper pattern

As Gary Borger says in his 1991 book, *'Designing Trout Flies'*: ***'Those big hind legs push well away from the body and become a prominent, unique feature. When seen from underwater, the distinctive angle of those big kickers makes the insect look bow-legged.'***

I bar the rubber materials by holding the strand against a cotton ear bud and then touching it with a permanent marker.

I use a 1x fine TMC 101 straight eye hook in size ten because it gives me the tying space I need and because my friend, professional fly tyer Jan Korrubel, says bigger hoppers intimidate the tiddlers.

My thread of choice is Veevus 16/0 in fluorescent green because it is thin and strong and the colour might be a trigger. UCT Ultra Thread 70 Denier in fluo green would be an alternative.

For weight I use Hends or Veniard flat lead tied beneath the hook shank - but keep in mind that this is a theoretical design and you might want to use metal bead chain for the eyes if more weight is needed to slightly submerge the fly.

Dressing

Hook **-** TMC 101 # 10

Thread **-** Veevus 16/0 or UTC 70 denier in fluo green

Weight **-** Hends or Veniard flat lead beneath the hook shank

Eyes **-** Small plastic or brass bead chain – black

Antennae **-** Hareline Daddy Long Legs in tan or olive barred with a permanent marker or Micro Krystal Flash. A small dot of UV light-cured resin is placed at the end of the antennae

Body **-** Hareline UV Chewee Skin in olive or tan

Legs **-** Two diameters of rubber. A small dot of UV light-cured resin is placed at the joint and tip of the leg

Wing **-** Wapsi Thin Skin

I start by attaching the antennae, barring them with a permanent marker and then attach the UV resin + purple glitter dust 'light bulb'. This might need several small applications, curing each one to create the correct size.

The plastic bead chain eyes are attached to the bottom of the hook shank and so is the flat lead.

Tie in a tapered strip of Chewee Skin at the hook bend and wind forward in overlapping turns to create a body which tapers towards the rear. End the body a few millimeters behind the eyes leaving space for the rubber legs and Wapsi Thin Skin to be attached.

After tying in the legs, place a tiny drop of superglue at this point to anchor the wing being careful not to get any on the antennae or legs because it will shrivel them.

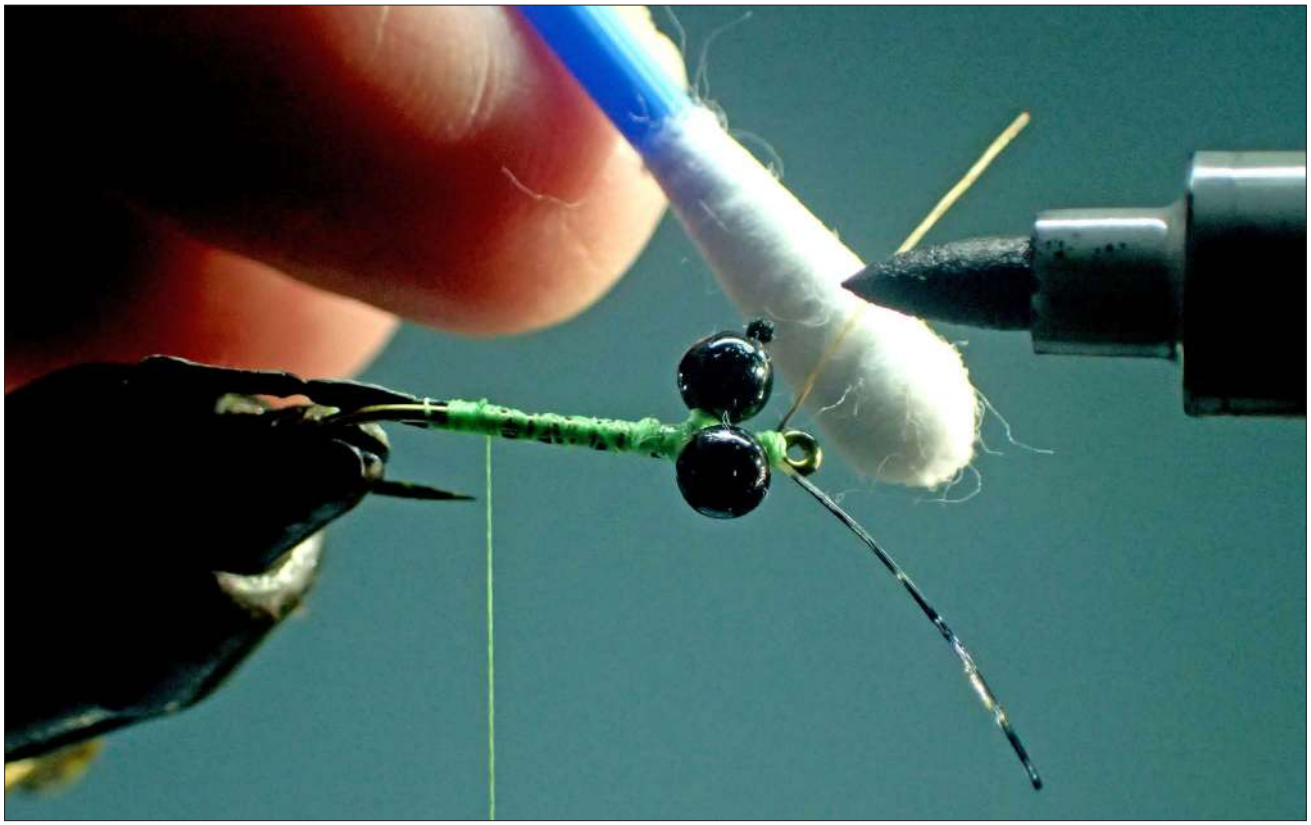
Place a few turns of thread over the wing to anchor it and apply another drop of superglue before whip finishing at this point.

To enhance the movement of the fly in the water, I believe it is imperative when attaching it to the tippet to use a loop knot. The Lefty Kreh Non-Slip Loop Knot was difficult for me, so I just used a Perfection Loop, covering it well with Loon Knot Sense before tightening. I would anchor the hook in the stripper guide which left both hands free to gently tighten the nylon until the loop was the correct size.

(L) Sunken Hoppers being tied by Jan Korrubel, chairman of the Natal Fly Tyers Guild. The lead wire beneath the hook shank is obvious

In the past, I loved the subtlety of fishing sunken beetles in spring and little copper wire ants for the rest of the season using a small yarn strike indicator and a greased hi-vis leader.

I now regret that I did not follow Gary LaFontaine's advice and try the sunken hopper as well. All I had to do was put a split shot on the tippet ahead of my early foam rubber hopper which were based on the balsa wood MacMurray Ant and which proved to be very successful…



Mottling the antennae on a sinking hopper before adding the UV resin 'light bulb' tips

The sunken hopper was first tried by Ian Cox and Jan Korrubel at the annual Rhodes Wild Trout Association Festival – Ian Cox caught a trout that would not fit into his 32-inch net and Jan Korrubel was broken by what he described as the most savage strike he has experienced in decades of stream fishing. Gary LaFontaine was right.

When hoppers are most effective

The best time to fish hoppers is late autumn when they reach maximum size and begin mating and laying eggs. I covered this is in Chapter 12 – 'Terrestrials – a Seasonal Rationale.'

My theory is that hoppers prefer crops like lucerne to indigenous grass species which probably contain protective toxins and, when I see White Storks diligently pecking their way through a lucerne field close to the riverbank, I believe that fishing a hopper, floating or sinking, in that area, is the correct approach. Hoppers reach maturity and maximum size in autumn which is when the storks are preparing to migrate to Europe and the UK to breed so, for the storks, this is a happy coincidence and, for the anglers, a welcome portent of good fishing.