## LIFE ALONG THE STREAM – A LOVE STORY; CADDISFLIES COULD TAKE A PRIZE FOR THEIR VARIATION OF SPECIES

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[**Review**: A Catalogue and Atlas of the Caddisflies (Trichoptera) of Ireland. Published in The Irish Times, 12 March 2016, in the Another Life column]

Now that I swallow my pills with icy water from the electric well, the stream has lost a certain presence in our lives. There's no more climbing the hill to find out what's blocking the gravity pipe or left its filter sucking air, so I have rather lost touch with the stream's invigorating life.

The high pool that fed the kitchen tap has a great ocean view, from the Connemara mountains right around to Clare Island. I used to sit there for a while on good days, perhaps attended by a summer wheatear, chacking and bobbing on its rock. On others I might struggle with an airlock, anoraked and stooping – to borrow from Paul Durcan – "backside to the wind".

Down at the house, double glazing now shuts out the sounds of the stream as it echoes under the bridge and ducks out again through the hedge. The hollow it carved beside the house is muffled in a tangle of fuchsia. Even so, the roar and rumble of the winter floods set a bass note to my bedtime reading. I wondered how any kind of river life could withstand that rampage.

One sort is celebrated in a hefty brick of a paperback – 600-odd pages – published recently by the Irish Biogeographical Society and the National Museum of Ireland. A Catalogue and Atlas of the Caddisflies (Trichoptera) of Ireland (irishbiogeographicalsociety.com: €20) is the work of Dr James P O'Connor, emeritus entomologist and former keeper of the Natural History Museum.

When our daughter, Michele, at about 10, was rummaging among the rocks beneath our bridge, she retrieved a little caddis larva stuck to one of their undersides. She was fascinated by its protective armour of minute sticks, stones and sand grains, bound together by silken threads. This prompted a family expedition up the hill, with plastic bags, pillboxes, a net and the kitchen sieve.

I would like to report that the capture of whirligig beetles, water crickets, caddis cases and so on planted a lifelong passion for natural history, but trichoptera could not, as it turned out, compete with *Equus equus Connemaris*, or, her pony.

Jim O'Connor, on the other hand, wanted to be an entomologist from the age of six, as an angler fishing the River Tolka near his home and using caddis larvae for bait. Studying zoology at University College Dublin, he was challenged to identify bottles of adult caddis flies, the more usual lures of casting flies for trout. He was also lucky enough, as a PhD student, to meet

and marry a fellow Tolka prospector, Mary Norton, who became a trichopteran expert in her own right.

Caddis flies could take a prize for their variation of species: they are the most diverse insect order whose members are exclusively aquatic. Some 150 are listed in O'Connor's book, and the pages of distribution maps shows what "biogeography" is about. The scores of dots from his own years of fieldwork speak not only for watery days of turning up rocks and netting caddis flies from bankside vegetation but also for nights beside lakes and streams with portable light traps to attract nocturnal species on the wing. The rather eerie light of the traps, he says, "often caused consternation to courting couples in secluded pull-ins beside rivers and lakes".

Many people think of the adult flies as moths, but "trichoptera" means "hairy wings"; moths and butterflies have fragile scales to create their wing patterns. To anglers they are "sedge flies", from the plants they often cling to by day, and are imitated artificially in the speckled Peter, black silverhorn, cinnamon sedge or caperer in their fly book.

Where "caddis" came from is possibly the Elizabethan street hawkers in England called caddice men, with samples of braids stitched to their coats.

Not all caddis larvae lash their silken tubes to rocks and armour them with handy fragments. Others spin silken nets to filter feed or swim freely, with a strand of silk to stop them drifting. Such illuminating differences distinguish the family groups among some 50,000 trichopteran species across the world.

O'Connor's more personal memoir is as illuminating as the biology, not least of the administrative travails of his long career. His caddis research was interrupted when, in 1988, the Office of Public Works seized upon the early retirement of the then keeper of the Natural History Museum, Colm O'Riordan, to abolish that position. At a superior's friendly entreaty O'Connor took it on, without extra pay, "to safeguard the collections" – this at a time when the museum was swirling with dust from major refurbishment works. He also secured the museum's expansion to a renovated Beggar's Bush barracks.

After 10 years he was "promoted" to the re-established post of keeper, with commensurate pay, but later applied to resume his duties as museum entomologist. In writing his book he and his wife went back to the pond where they had taken caddis flies on their honeymoon, in the 1970s. They found fences a bit difficult but collected "some lovely species".

