

Y ADVENTURES WITH the marble trout began a decade ago on the banks of the turquoise Soca River in western Slovenia. This stunningly beautiful alpine river, nicknamed locally the emerald beauty, rushes headlong for some 90 miles through the valleys of the Julian Alps, before entering the Adriatic as the Isonzo River, just north of Trieste.

The marble trout is one of the unique races of trout whose biology and distribution reflect the waxing and waning of the giant ice sheets as they scraped their way across the surface of the fledgling European continent at the end of the last ice age. As its name implies (it derives from the Latin marmor, meaning "marble") the flanks of the fish display a very distinctive marbled pattern. They are often olivegrey/green in colour and on some trout the distinctive marbled colouring can reach to the belly of the fish. The intensity of colour varies considerably depending upon the surroundings. In some relatively rare cases, the fish have red spots that merge with the rest of the pigment along the lateral line. Though predominantly fish-feeders, they may also feed on invertebrates. They are long-lived and can grow to 45 lb or more - the larger fish are almost exclusively nocturnal. The natural distribution of marble trout ranges from Bosnia-Herzegovina in the east to Italy's Po River basin in the west.

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My previous visits had focused solely on these fascinating fish and on efforts to hook one of the many monsters that lurk among the giant limestone boulders paving the bed of the upper Soca. My most recent visit was different. This time I was celebrating two anniversaries, the first a pleasant one – a decade had elapsed since I first experienced the thrill of fishing the ice-cold waters of the Soca. The second anniversary was a far more sombre affair. It was to learn about the horrific, bloody battles that had taken place exactly 100 years ago, along the very stretches of river with which I had, over the years, become so familiar. I was also to learn how the unimaginable mayhem of the Isonzo Front had fundamentally affected the welfare of the native marble trout.

My companions on this voyage of discovery were my photographer friend Gardiner Mitchell, who is also an authority on the First World War, and Blaž Zidaric, director of aquaculture, at the Fisheries Research Institute of Slovenia, a specialist in the rearing and conservation of a range of indigenous Slovenian fish species, including marble trout. Both, needless to say, are also accomplished anglers.

Blaž is based in the town of Kobarid, which is home to a fine museum dedicated to the memories of those who fought and died along the Soca valley from June



Ken Whelan is

a fisheries biologist and keen angler. His work has taken him to many exotic locations across the globe, where he always finds a reason to go fishing (www.ken whelan.info).

RIGHT
A fine marble
trout, caught on
a jig from the
Upper Soca.



"A million or more soldiers and civilians died or were mutilated along the short 50-mile stretch of the Soca valley"

1915 to October 1917. The Isonzo Front (the Italian name for the Soca) and the battles in the Balkans between the Italian soldiers and regiments of the Austro-Hungarian Empire are little known outside of the countries directly affected by the conflict. Over a period of 29 months, a million or more soldiers and civilians died or were mutilated in the savage conflict along the short 50-mile stretch of the Soca valley. What these enormous armies were doing, entrenched opposite each other among the mountains bordering the Soca River, only a few hundred feet apart, exactly mirrored the positions of their respective Allies a thousand miles away on the Western Front in Flanders.

In April 1915, in the secret Treaty of London, Italy was promised by the Allies that part of the territory of the Austro-Hungarian Empire that was mainly inhabited by ethnic Slovenes. In May, Italy declared war on Austria-Hungary and launched a campaign of trench warfare in Slovenia. Italian Field Marshal Luigi Cadorna, a staunch proponent of the frontal assault, had plans of breaking into the Slovenian plateau, taking Ljubljana and threatening Vienna.

After each catastrophic repulse of the Italian campaign Cadorna convinced himself that the next strong push, if determined enough, would achieve a complete and decisive eastward breakthrough – a "stroll to Vienna" – and victory. The Austro-Hungarian troops held most of the vital high ground and were determined to prevent that breakthrough, while awaiting their own chance to advance westward into the Friulian plain of northern Italy. The stalemate produced a campaign as bloody and terrible as that



Ken Whelan visits the Kobarid war museum.

on the Western Front, but one that has remained all but unknown outside of Italy, Austria and Slovenia.

Apart from an introductory panel, the walls of Kobarid's Museum are adorned solely with personal testimony to the horrors of what the predominantly young soldiers encountered:

February 22, 1916: an Italian officer writes: "My dear parents! It has never occurred to me that one can stand so much. I sleep among dead bodies, I live, eat and drink among dead bodies that have already decomposed or are decomposing and filling the air with unimaginable, abominable stench. My cape and military equipment, everything stinks of dead bodies, there are thousands of them in front of me, thousands by my side and behind me, in the open battlefield, in this crater of death. One can see and hear nothing but death, one breathes and thinks of nothing but death."



There were 11 major Italian offensives on the Isonzo Front, trying in vain to break eastward into Austria, but they never did get through. They were blocked by the constantly swollen waters of the Soca and the impenetrable defenses of the Austro-Hungarians high on the hills and surrounding mountain tops. A frightened young conscript, already demoralised by one bloody repulse after another and heavily laden with his rifle and full army kit, clearly visible against snow or pale grass as he stumbled awkwardly upwards among the decomposing corpses of previous assaults, made an easy target for an experienced machine gunner or sniper securely ensconced in a solid-rock cavern high above him.

The stalemate was eventually broken in October 1917 by an Austro-Hungarian offensive, supported by elite German soldiers using a prototype of the blitzkrieg tactics of rapid mobile advances, later employed so effectively by Germany during the Second World War. The German troops used heavy blankets of poison gas and were led by a young Erwin Rommel, later to become the famed and feared Desert Fox of the Second World War. This massive and very successful counter-assault would eventually grind to a halt in northern Italy, on the banks of the Piave River, yet another marble trout stronghold.

Finding remnants of this horrific war along the banks of the river is surprisingly difficult. Time has erased and hidden much of the external impacts on the landscape and the visitor could be completely unaware of the deep and dark secrets of a lost generation lying beneath the high limestone mountains and verdant fields of the Soca valley.

Hidden also are the less obvious impacts wrought on the river's inhabitants. For, in addition to the tragic loss of human life, indescribable damage was done to the river itself and its inhabitants. The arrival of millions of combatants, their armoury and their need for freshwater and food had a profound effect on fish life in the Soca. One quote from Vilko Marin, a local doctor at the time, emphasises just how profoundly the river was impacted by dissolved poisonous gas, munitions and the untreated effluent from millions of new inhabitants, not to mention the rampant water-borne disease brought to that lovely place by the dead and decomposing bodies of the soldiers' fallen comrades. The troops were constantly in search of water safe enough to drink:

May 1916, Dr Vilko Marin writes: "There was a

ABOVE Italian artillery crossing a pontoon bridge on the River Soca while horses are watered on a nearby sandy river bank.

"Finding adequate numbers of native marble trout in the remoter streams was back-breaking, thankless work"

single, small brook that provided water to soldiers. With incredible patience they were waiting, thirsty, for hours, before they were allowed to the little source to fill their flasks and buckets."

Beneath the water the resident fish were also reeling from the relentless impacts of the conflict.

Immediately following the war a local fish hatchery in Kobarid set to work to restore the trout populations of the Soca by identifying appropriate broodstock. Finding adequate numbers of native marble trout in the remoter streams was back-breaking and thankless work. Attention quickly began to focus on brown trout, which had first been imported into the hatchery from Sarajevo in 1906. These, it was found, were far easier to rear and stock into the local rivers

42 February 2016 | www.trout-and-salmon.co.uk | February 2016 43



"They begin feeding on fish and their growth rate can explode"

ban all stocking of brown trout in the Adriatic rivers of Slovenia, in combination with careful selection of broodstock that were wild, or showed little evidence of their ancestors having interbred with brown trout, has ensured that the restoration programme is progressing well. However, recovery is slow, not least because of the basic biology of the fish. Initially at least the growth of marble trout can be very slow and variable. As they pick around on the bed of the cold isolated rivers they call home, the young marble trout may be no more than 10 in (25 cm) at four years of age. At this point they begin feeding on fish and, like our own ferox trout, their growth rate can explode.

Originally native to the River Po and its tributaries, the marble trout's natural home is in the rock-strewn riverbeds of the Slovenian and Italian alpine rivers. This is best seen in the upper Idrijca River where massive marble trout of 24 in-40 in (60 cm-100 cm) in length are to be found lurking in deep holes, under the huge boulders that pave the river channel. The faster-growing strains can reach 40 in (100 cm) or more but the short growing season curtails growth in the colder months and these larger fish may be 18 to 20 years of age.

It is important for the angler to realise that the natural stock density of marble trout is low. Living in these relatively unproductive waters the larger trout live a solitary existence, in discrete areas of the river. Nocturnal by nature, they show little interest in migrating great distances, even to spawn and often live out their lives in close proximity to their holding and feeding areas. To ensure a reasonably productive sport fishery for marble trout the authorities have found it necessary to supplement the wild stocks with modest distributions of farm-reared progeny. Catch-

and-release is of paramount importance in the conservation of this unique stock.

The marble trout is also under pressure from an enemy that has in recent decades wreaked havoc on their natural territories. The massive earthquake of 2004, concentrated around the town of Bovec, in the upper Soca catchment, loosened vast quantities of glacial till, gravel and rocks from the mountainsides. To this day the upper catchment is feeling the effects of this earthquake. When we visited in September last, the normally crystal-clear waters of the river were cloudy due to the effects of a recent flood, which had again disturbed mounds of glacial material. Even more sinister are the effects on the holding pools of the larger trout, as these are often filled in and destroyed by the eroding riverbed. Such events have taken place for millennia and the trout have adapted, as the biology of these extraordinary fish includes the ability to produce more eggs and more juveniles as the population declines and so compensate for the effects of such natural disasters. Perversely, over the period of the Isonzo battles, 1915 to 1917, the Soca valley was bombarded with some of the heaviest rainfall ever witnessed in the area. This and the movements of two massive armies doubtless added greatly to erosion. It would seem the resident marble trout were under siege not alone from the enemy without but also from the enemy within!

At the end of my trip, I sat on the steps of the giant ossuary in Kobarid, containing the bones of more than 7,000 Italian soldiers and built to commemorate the dead of the Isonzo campaign. I looked down on the marble trout hatchery and the exquisite, fertile valley of the Soca stretching out before me and found it hard to come to terms with the starkly contrasting but interwoven stories of the valley's beauty, its dark hidden secrets and wonderful, truly unique, resident trout. In a strange way it was comforting to think that the bones of the fallen have by now been incorporated into the very essence of the valley itself. This to me is a special place demanding profound reverence.

BELOW LEFT
The church built
over the ossuary
containing the
bones of more

than 7,000

Italian soldiers.

BELOW RIGHT Blaž Zidaric, from Slovenia's Fisheries Research Institute, with a reared adult marble trout. and streams. This was a turning point in the history of the marble trout, as the exotic brown trout did exceptionally well in the depleted river and were so closely related to the remaining marble trout that they quickly began to hybridise with the resident fish. Most surprisingly, all of the resultant hybrids proved to be fertile, further confusing the genetics of the native marble trout stocks.

This then was the situation confronting my good friend Jože Ocvirk, as head of the Fisheries Research Institute of Slovenia, when he first addressed the daunting task of restoring the true wild marble trout of the Soca in the early 1980s. Jože and his team, with the help of a coalition of local fisheries groups, set about their task with earnest vigour and over a period of a few short years surveyed all of the likely locations in the Soca valley where pure marble trout might be found. Based on colouration alone, the most likely suspects were separated from the putative hybrids and carefully transported to the Kobarid hatchery. After three years of extensive surveys, when options

were fast running out, there were still doubts that the teams had located any truly wild marbles. In July 1985, a chance meeting and the discovery of some strange-looking trout in the house of a friend, led Jože to the Zadalašcica stream - a small tributary of the River Tolminka. Above a near vertical, impassible waterfall Jože and his team found their Holy Grail, an isolated population of pure marble trout. Subsequent work unearthed five or six more such populations and so the nucleus of the restoration stock was established. In the early 90s a further restoration programme, this time based on modern genetic profiling and family-based stock selection, was established in the Tolmin area. The Tolmin hatchery today complements the original hatchery and its native broodstock, so carefully nurtured and sustained by Blaž and his colleagues in Kobarid.

Recent research has clearly shown that stocks of wild marble trout are slowly recovering. Despite the fact that genetic diversity among some of the remnant isolated stocks was low, the decision in the mid-90s to





Fishing on the Soča

Ken and Gardiner Mitchell (www.gardinermitchell.com) travelled to Slovenia courtesy of the Fisheries Research Institute of Slovenia (www.zzrs.si/en) and Slovenian Tourist Board (www.slovenia.info).

- Information on fishing in the Soca valley can be found on the Fisheries Research Institute website: www.zzrs.si/en/page/ribolov
- For accommodation in the Upper
 Soca valley at Bovec, try the Hotel
 Dobra Vila: www.dobra-vila-bovec.si/
 (click on Union Jack symbol
- for English translation)

 For guiding in the Upper Soca, contact Matevž Jus at:
- www.socaflyfishing.com

 Kobarid Museum (Kobariški Muzej)
 of the First World War:

www.kobariski-muzej.si/eng The curator is Zeljko Cimpric: info@kobariski-muzej.si



Bernard

Šemrajc

proudly

displays a fine

marble trout

stock survey

of the upper Idrijca River.

taken during a

Hotel Dobra Vila in Bovec.



44 February 2016 | www.trout-and-salmon.co.uk | February 2016 45