

CORMORANTS AND FISH.

TO THE EDITOR OF THE ARGUS.

Sir,—The Campaspe river, from the Coliban, near Redesdale, right through to Echuca, where it flows into the Murray, was always, up to within about four years ago, one of the best rivers in Victoria for bream angling, cod flashing, and blackfish. But now a man might flash from daylight to dark, using spoon, kidney, or propeller spinner, without a touch. If the northern streams are to be stocked with fish (as they should be), the first thing to be done is to get rid of the gorman-disers—shags and cormorants. A genuine offer of two cartridges for each shag's head (to be destroyed at once to prevent duplication) would be effectual. I shot a couple last week, and opening them discovered a golden perch, 1½lb. weight, with a small cod, about ½lb., partly digested. The week previous two were shot which had a good supply of blackfish and very small cod (each about 5oz. weight.) I would like to see this suggestion carried out, and feel sure it will meet with success. I find No. 8 shot very deadly at short range, as the larger number of pellets get home.—Yours, &c.,

T.H.H.

Argus, 3 February 1920

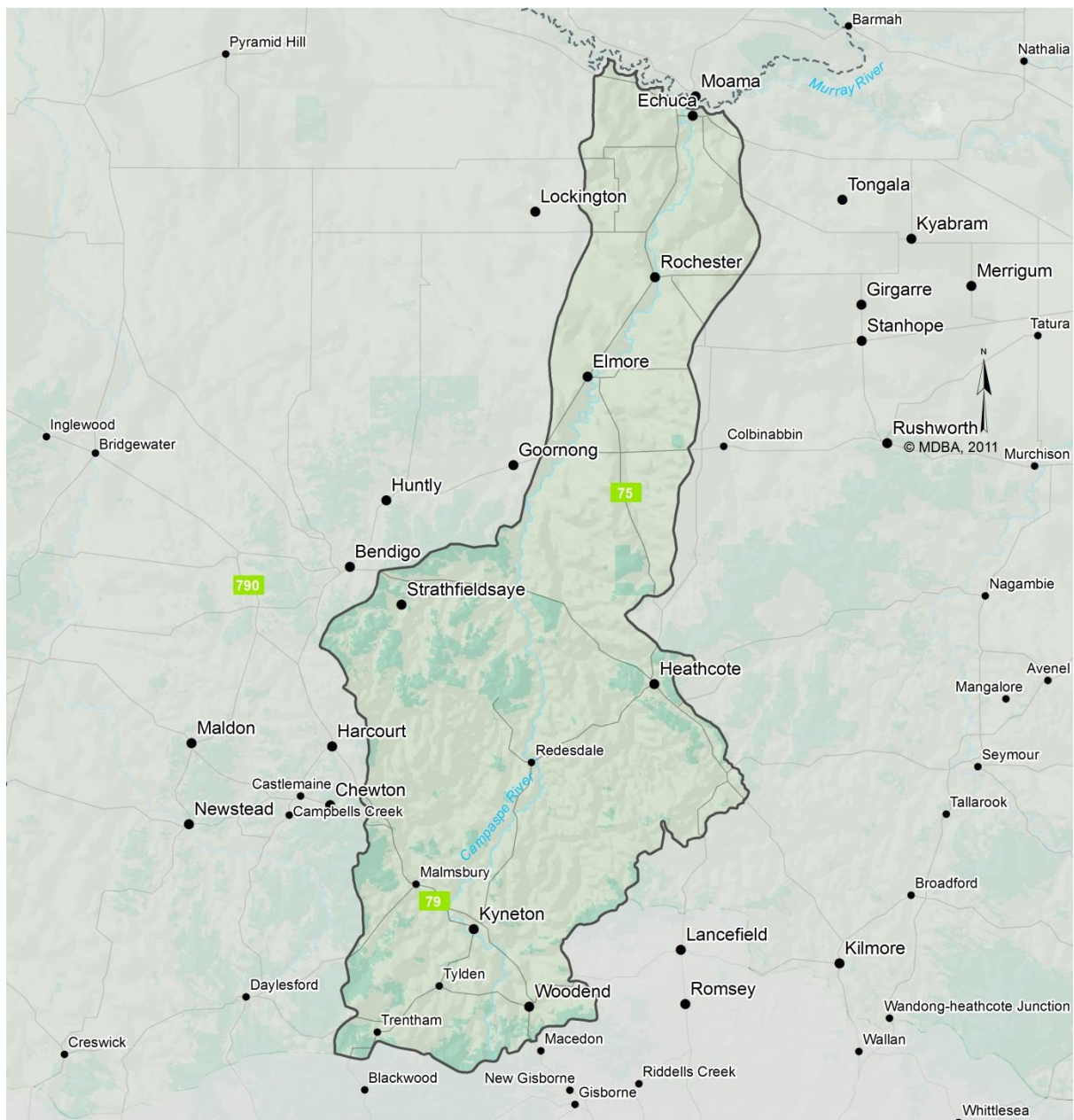
CORMORANTS AND FISH.

TO THE EDITOR OF THE ARGUS.

Sir, - The Campaspe river, from the Coliban, near Redesdale, right through to Echuca, where it flows into the Murray, was always, up to within about four years ago, one of the best rivers in Victoria for bream angling, cod flashing, and blackfish. But now a man might flash from daylight to dark, using spoon, kidney, or propeller spinner, without a touch. If the northern streams are to be stocked with fish (as they should be), the first thing to be done is to get rid of the gormandisers – shags and cormorants. A genuine offer of two cartridges for each shag's head (to be destroyed at once to prevent duplication) would be effectual. I shot a couple last week, and opening them discovered a golden perch, 1½ lb. weight, with a small cod, about ¾ lb., partly digested. The week previous two were shot which had a good supply of blackfish and very small cod (each about 5 oz. weight.) I would like to see this suggestion carried out, and feel sure it will meet with success. I find No. 8 shot very deadly at short range, as the larger number of pellets get home. – Yours, &c.

Argus, 3 February 1920

Figure 14.1 **The Campaspe River Catchment showing major waterways and key localities.**



14.1 Early European Accounts

The Campaspe River originates on an elevated plateau north west of Melbourne, carves its way through volcanic flows, cascading over falls to descend to the plains of northern Victoria, entering the Murray River at Echuca. The first European to enter the Campaspe catchment was Major Thomas Mitchell. On September 30 1836 Mitchell wrote in his journal 'arrived on the banks of a small and deep river with reeds on its borders, and containing many broad and deep reaches' which he named the 'Barnard'. Mitchell discovered a waterfall on the river Barnard which impressed him greatly by its immense beauty, recording it as the 'Waterfall of Cobaw', without explanation for the origin of either the name of the river or waterfall (Mitchell, 1838). Shortly afterwards Mitchell encountered another stream which he named the 'Campaspe' after Alexander the Great's legendary mistress depicted by the ancient artist Apelles (Mitchell, 1838). Mitchell's party eventually followed the Campaspe downstream passing through the future Heathcote area before taking a more eastward path to reach the Goulburn River.

The early settlers of the district applied the name of the Cobaw waterfall to the river itself. Alexander Mollison, who settled on the 'Cobaw' River in 1838, claimed responsibility for changing its name to 'Coliban'. He based it on the aboriginal corruption of the word (Bride & Sayers, 1969). The solitude of the early pastoralists was broken by the gold rush initiated by William Bulling whose discovery of gold, in December 1852, in the Mclvor Creek near Heathcote, led to the establishment of a major goldfield (Randall, 1985). Subsequent discoveries took place near Malmsbury and Tylden in the top of the catchment but were comparatively minor workings. While significant, the gold fields of the Campaspe were relatively small by comparison to that discovered at Bendigo in 1851, where extensive deep mining of quartz reefs developed (Flett, 1979).

Few historical accounts have been previously reported of native fish in the Campaspe catchment. The earliest was written by an unidentified naturalist who described in detail the environment of the upper Campaspe and how his aboriginal assistant caught a 'fine codfish' (*Argus*, 14 March 1850). William Howitt, travelling from the Mclvor diggings in 1854, recorded that on the Campaspe 'There were a number of natives fishing here, who had caught a good quantity of the river cod, and had learned to ask a good price for it' (Howitt, 1855). One early newspaper account described how:

A party of young men went out on Good Friday, from Heathcote, to the Wild Duck Creek, on a shooting and fishing excursion, and at a spot in the creek just below Mr. Itzerott's farm they found a number of Murray cod swimming about with their noses just awash at the surface of the water: they shot six of the fish, and recovered the whole of them by one of the party going in for them when shot. The total weight of the six fish was 76 lb., the largest weighed 17 lb. Besides this fine take of cod, the party secured some other fish, such as grunTERS or catfish and blackfish, which like the cod were swimming about on the surface of the water in great numbers. We are informed by Mr. Itzerott that on the morning of Saturday he went down to the creek and saw fourteen or fifteen cod, weighing from 10 lb. to 15 lb. each, in shallow water, among some rocks (*Sydney Morning Herald*, 29 April 1870).

In 1973 the Victorian Fisheries and Wildlife Division's publication *Freshwater Fisheries Newsletter* contained an article on the history of native fish in the Coliban and upper Campaspe Rivers. The author was anonymous, but sourced the information from Keith Henderson a long-time resident of Harcourt. Henderson was well known for his philanthropy, was closely involved in the operation of trout hatcheries in the region, and actively pursuing the acclimatisation and hatchery production of native fish, particularly Macquarie perch (Clements, 1988). The article outlined how in the two rivers c1920:

the angler would have caught Macquarie perch, Murray cod, trout cod and blackfish. Only the blackfish have survived the impact of man. Before 1950 these rivers were known as two of the best Macquarie perch streams in the State. Regular fishing trips between 1925 and 1935 by the Kyneton and Malmesbury Angling Clubs resulted in excellent bags of Macquarie perch; fish weighing up to 1.8 kg were common, with the average weight being 1.3 kg (Anon, 1973).

It then went on to describe the changes to fish populations in the area that transpired over the years, and speculated on the possible causes for the loss of native fish populations (Anon, 1973). John Clements, in his book on the history of fish introduction to Australia, recorded one of Keith's anecdotes on the fish in the Campaspe system. Around 1910 Keith and his school mates went fishing in the Axe Creek just east of Bendigo and were confronted with a scene of Macquarie perch schooling in their thousands in the flooded creek. The fish could not be angled but such was their numbers that some were easily taken by being hit with sticks (Clements, 1988). The story has been repeated to the author by a number of people that knew Keith Henderson, including his daughter Lyn Allan. These two accounts originating from Keith Henderson provided valuable insights into the fish of the upper Campaspe early in the twentieth century.

Photograph 14.1 Upper Campaspe River



Photo: *State Library of Victoria* nc000451, H1658. Native fish were once abundant in the Campaspe River upstream to Mitchells Falls in the Barfold Gorge. This image, dating from c1890, shows the river at that location at a time when native fish populations still flourished. Photo reproduced with the permission of the *State Library of Victoria*.

14.2 The Past Distribution of Fishes in the Campaspe River Catchment

The *Sustainable Rivers Audit* (Davies *et al.*, 2008) divided the Campaspe catchment into a lowland zone (downstream of Redesdale), a slopes zone (upstream to Barfold and Metcalf) and an upland zone beyond the latter location. Only a few headwater creeks exist in the montane zone. Slopes type habitat, identified by the presence of confined valleys with streams containing extensive coarse gravel and sand substrates, extends downstream to the Axedale area. The slopes zone is treated as existing down to that location in this discussion. Apart from the slopes/lowland zone boundary, the habitat zones discussed below match those in the *Sustainable Rivers Audit*.

Most of the information presented below is sourced from quite a number of newspaper accounts and limited oral history (mainly OH 132-138). Very few old photographs of catches of native fish in this catchment have been located. It is recommended that further historical research be undertaken in this catchment particularly to locate early photographs of catches of fish and collect information on fish populations in the lower reaches.

14.2.1 The Montane Zone

Only a few very small streams penetrate into the montane zone of this catchment and there are no confirmed records of larger native fish being present, though one account suggests Blackfish may have been present (*Argus*, 3 February 1905).

14.2.2 The Upland Zone

A number of newspaper accounts record large catches of Blackfish in the upland zone, indicating that they were abundant. They were caught in the Campaspe River and local streams, such as the Post Office Creek near Kyneton, in 'thousands' and on one occasion large numbers were stranded by a flood in that town (*Argus*, 12 September 1870, 3 February 1905, 24 February 1905; 22 November 1921; 3 June 1927; Wilson, OH 133). Mitchells Falls in the Campaspe River near Barfold, and the Coliban Falls in the Coliban River upstream of Metcalf, provided significant instream barriers to fish passage. As a consequence, apart from Blackfish, none of the larger species of native fish were originally present in the upland zone (Wilson, OH 133; East, OH 134).

14.2.3 The Slopes Zone

Early newspaper accounts indicate that cod had been very common to abundant in the rivers and larger creeks of the slopes zone. One early account indicated a typical size of 4-5 lb. (1.8 to 2.3 kg) with fish up to 15 lb. (6.8 kg) being taken near Redesdale (*Argus*, 24 November 1856). In later years cod as large as 60 lb. (27.2 kg) were taken (*Mount Alexander Mail*, 2 February 1915). At the bottom of the slopes zone, Murray cod up to 100 lb. (45.4 kg) were captured, near Axedale (*Argus*, 14 October 1891). In 1911 it was suggested that 'the total weight of the fish taken from the Coliban and Campaspe since the season opened' had been 'tons' (*Mount Alexander Mail*, 5 January 1911). Cod were also common in the larger creeks such as the Wild Duck near Heathcote, where, in 1870, a party 'shot six of the fish, and recovered the whole of them by one of the party going in for them when shot. The total weight of the six fish was 76 lb., the largest weighed 17 lb.' and another resident 'went down to the creek and saw fourteen or fifteen cod, weighing from 10 lb. to 15 lb. each' (*Sydney Morning Herald*, 29 April 1870; *Argus*, 8 January 1909).

Keith Henderson reported the presence of Trout cod in the Campaspe and Coliban Rivers near Redesdale. His familiarity with the species is demonstrated by the surviving photographs of a specimen he captured from the Broken River during the 1970s (Photo BR1). Jock Nicholson's father, who was born at Heathcote, recalled that Trout cod had been common in creeks near Derrinal, including the Wild Duck Creek, and both were familiar with the Trout cod, catching them in the Murray River near Tocumwal (Nicholson, OH 67; Jock Nicholson, pers. com.). The oral history is corroborated by a news item in the *Argus* in which there was extensive discussion on the Trout cod or 'Murray trout' between correspondents which included good physical descriptions. In that article Mr. W. Wilson of Castlemaine reported 'I have caught dozens of Murray trout in the Coliban and cod at the same time. The difference was easily seen. The head of the trout is a different shape, and the mouth is smaller. I know of no better eating fish than trout' (*Argus*, 17 March 1911). Only two photographs of catches of cod from the slopes zone have been located. Both originate in the 1940s, by which time cod had become very scarce (Photos CR2-3; Anon., 1973). These photos record a single Murray cod. Collectively the oral history and newspaper account indicate that Trout cod had been very common in the slopes zone along with Murray cod.

Macquarie perch were abundant in the rivers and larger creeks of the slopes zone. Large catches were taken from the Campaspe River near Redesdale (*Western Mail*, 10 August, 1917; Anon., 1973) and in the Coliban River. Newspaper accounts regularly recorded good catches of 'bream' (*Mount Alexander Mail*, 12 January 1911, 7 February 1911, 14 December 1911). Keith Henderson described the Coliban and Campaspe Rivers 'as two of the best Macquarie perch streams in the State' (Anon, 1973). In the Axe Creek, Macquarie perch at times had been prolific (Clements, 1988) and a newspaper account also records 'bream' as being once present in the Wild Duck Creek, near Heathcote (*Argus*, 8 January 1909). Overall, Macquarie perch were abundant in the rivers and larger creeks of the slopes zone.

Silver perch were taken at times in both the Coliban and Campaspe Rivers. Donald MacDonald of the *Argus* examined a specimen sent to him by a Castlemaine angler taken in the Coliban River which was identified as *Terapon ellipticus*, a synonym for Silver perch. The article indicated that the fish was familiar to local anglers who debated how it should be classified (*Argus*, 20 November 1908). Una Taig indicated that she thought some 'grunter' had been taken near Axedale (Taig, OH 135) while the reported capture of 'grunter' in the Wild Duck Creek (*Sydney Morning Herald*, 29 April 1870) could have been Silver perch but is inconclusive. Una Taig recalled small numbers of Golden perch being taken near Axedale at the bottom of the slopes zone (Taig, OH 135) suggesting that they may have had a minor presence upstream though they were not recorded in oral history near Redesdale (East, OH 134). A regular newspaper correspondent with the nom de plume of 'Piscator' who resided at Castlemaine recalled catching a 2 lb. 'Murray perch' in the Campaspe River near Redesdale in the late nineteenth century. He provided several other accounts recalling captures of bream or more specifically Macquarie perch. His differentiation of this capture from the usual 'bream' suggests that it may have been a Golden perch (*Western Mail*, 25 September 1914). The available evidence indicates that small numbers of Silver perch were regularly taken in the slopes zone and Golden perch, while regularly taken near Axedale, were rare upstream.

Two second-hand oral accounts recall Catfish having been formerly present in the Campaspe River in the Redesdale/Barfold area in the early years of the twentieth century (Wait, OH 132; East, OH 134) and another first-hand account recalled Catfish being taken in the Axedale area near the bottom of the slopes zone (Colvin, OH 136). A newspaper article reported Catfish being taken from the Wild Duck Creek (*Sydney Morning Herald*, 29 April 1870) while a second recorded an incident of a Heathcote resident being stung by the spine of a Catfish, suggesting their local presence (*Argus*, 2 March 1868). Catfish were present upstream to the top of the slopes zone of the Goulburn catchment near Eildon (McKenzie, OH 116) and in the Loddon catchment near Clunes (*Clunes Guardian*, 31 August 1920). Given their presence in similar habitat in these two adjacent catchments it has to be concluded that these oral and written accounts indicate that Catfish were once

present, and not uncommon in slopes habitat in the Campaspe catchment, including in the rivers and larger creeks.

Blackfish were abundant in all habitats in the slopes zone including the Coliban and Campaspe Rivers near Redesdale (*Argus*, 24 February 1905; Anon., 1973; Wilson, OH 133), the Campaspe River near Axedale (*Argus*, 24 February 1905), the Wild Duck Creek near Heathcote (*Sydney Morning Herald*, 29 April 1870; *Argus*, 1 February 1924) and the Quinns and Mosquito Creeks near Axedale (Taig, OH 135; Colvin, OH 136). Blackfish were translocated from the Wild Duck Creek to the Wattle Flat Dredge Reservoir in the Loddon catchment upstream of Creswick and into the Hanging Rock Reservoir in the coastal Maribyrnong catchment (*Argus*, 1 February 1924). A newspaper account recorded that minnows or 'Mountain trout' had been common in Heathcote Creek (*Argus*, 13 May 1930).

14.2.4 The Lowland Zone

In the lowland zone most of the larger native fish were very common to abundant. At Strathallen it was reported that an angling party took a 'large haul of cod, perch, bream, and blackfish' (*West Australian*, 7 March 1914) and that it once contained 'golden perch which used to be plentiful in the Campaspe, the black perch and the silver perch or "grunter" ' (*Argus*, 5 February 1932). Murray cod were originally abundant near Rochester (Ken Major, pers. com.) and cod up to 40 lb. (18.14 kg) in weight were taken near Elmore (*Argus*, 19 March 1935). Cod up to 20 lb. (9.1) were common in lagoons near Goornong (*Argus*, 22 September 1906) and large numbers of cod were stranded at that location after a flood in 1939 (Read, OH 137). A letter to the *Argus* by 'S.M.' of Koyuga discussed the existence of a second, spotted type of cod in the Campaspe which he called the 'Murray trout' which was the common term for Trout cod (*Argus*, 5 February 1932). Although a specific location for the captures was not provided the author indicated that Golden perch were also common suggesting that it probably originated in the lowland zone adjacent to Koyuga (between Echuca and Strathallen). This one account suggests that Trout cod were present in the lowland Campaspe River and that they were relatively common.

Oral history recalls Macquarie perch to have been very common in the Avonmore area near Elmore at the end of the 1930s (Mudford, OH 139) but they were not recalled in later oral history at Rochester (Major, OH 138). The *Argus* reported that the Campaspe had once supported very good 'bream' fishing all the way down to the Murray (*Argus*, 3 February 1920) and that three perch species including 'black perch' were present (*Argus*, 5 February 1932). Silver perch had been very common at Rochester along with some Golden perch (Major, OH 138) which were described as once having been 'plentiful' in the Campaspe (*Argus*, 5 February 1932). A newspaper report in 1917 recorded three anglers fishing the Campaspe River five miles above Echuca and catching 'cod, perch and butterfish' (*Western Mail*, 13 April 1917). 'Butterfish' was a common early name for Macquarie perch, particularly amongst commercial fishermen (Laddie Clifford & Henry Davies, pers. com.), so the account probably records the capture of both Golden perch and Macquarie perch. The limited information available suggests that in the lowland zone Macquarie perch were abundant in the upper reaches, but declined in prevalence downstream, though were caught in numbers all the way to the Murray River, while Golden perch and Silver perch progressively increased in numbers downstream, being abundant in the lower half of the lowland zone.

Only a single account recalls the presence of Catfish in the lowland zone above the Elmore Weir (Major, OH 138) though, given their reported presence upstream at Axedale (Colvin, OH 136), and the presence of significant numbers in similar habitat in the adjacent Goulburn Catchment, they were probably originally common. Blackfish were reported as being caught all the way down to the Murray River and considered to be

a pest (*Argus*, 24 February 1905; *Western Mail*, 13 April 1917). They were common near Strathallan (*West Australian*, 7 March 1914), present at Rochester (*Argus*, 12 November 1910) and at Goornong, where large numbers of Blackfish were reported being stranded after a flood (*Argus*, 21 August 1923). They were also common in the lower reaches of the Forrest Creek (Read, OH 137). Overall, Blackfish were widespread and very common to abundant in the lowland zone.

14.2.5 Estimates of Native Fish Abundance in the Campaspe River Catchment at European Settlement.

Presented below are the rarity scores used in the *Sustainable Rivers Audit* (Davies *et al.*, 2008) which were developed by an expert panel using historical evidence available prior to 2008. They indicate the probability of capturing a particular fish species using standardized survey techniques such as electrofishing. They are compared to those developed in the *True Tales* Project using more recently obtained historical evidence and are based on the typical size of angler catches in the oldest accounts.

Table 14.1 Campaspe River Catchment Rarity Scores (Main River Channels)

Species	Lowland* (Murray River to Axedale)		Slopes* (Axedale to Mitchells & Coliban Falls)		Upland (Upstream of Mitchells & Coliban Falls)	
	SRA	True Tales	SRA	True Tales	SRA	True Tales
Trout cod	3	L3?	3	U3	3	0
Murray cod	5	5	3	U3	1	0
Golden perch	5	5	1	L1	0	0
Silver perch	3	U3	0	U1	0	0
Macquarie perch	3	U3	5	5	3	0
Catfish	0	U1?	0	1	0	0
'Blackfish'	3	U3	5	5	3	5

Key

0 = Absent: no credible account reporting the species former presence

1 = Rare: a few individual fish could be expected to be taken by a resident angler each year

3 = Common: regularly taken by a resident angler in small numbers

5 = Abundant: frequently taken by a resident angler in good numbers

L = abundance at the lower end rating

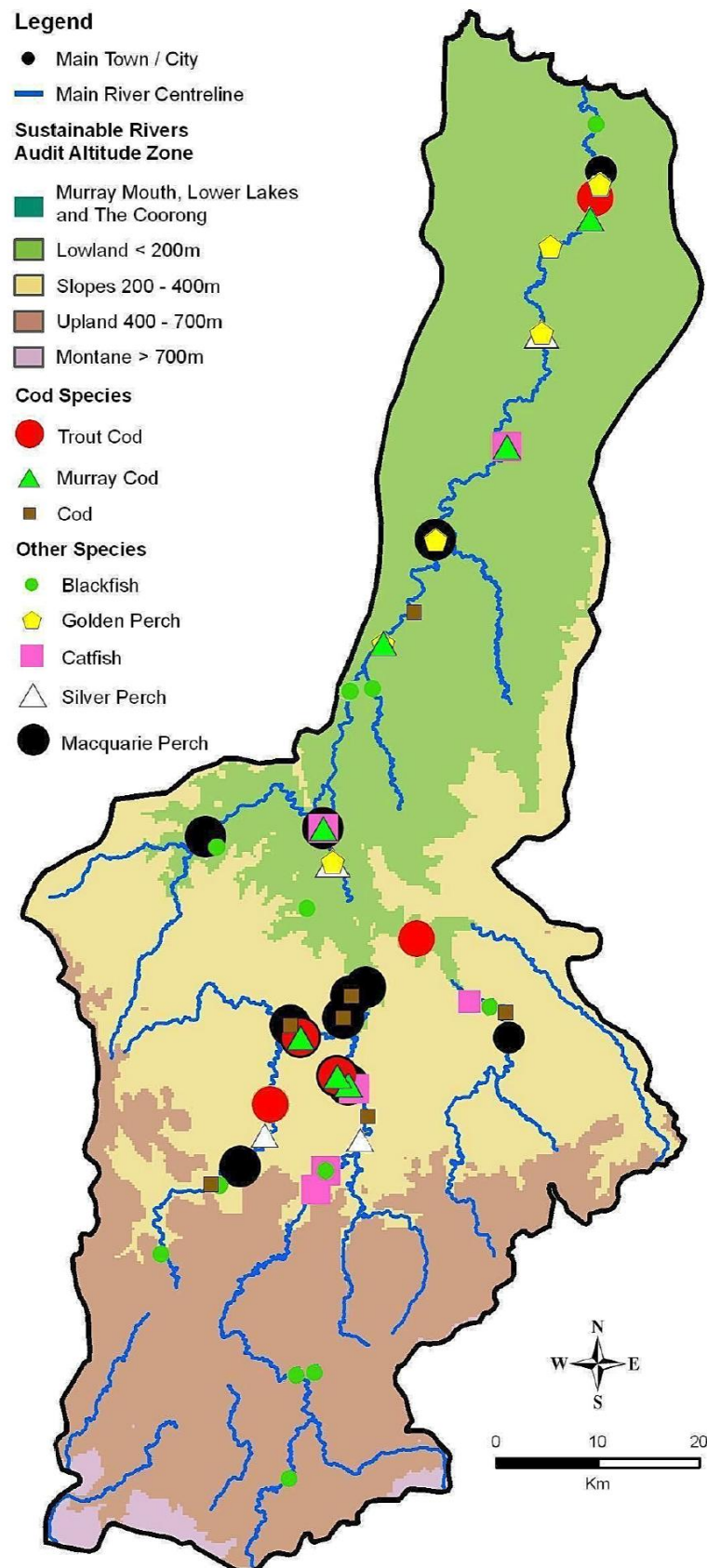
U = abundance at the upper end rating

Ratings in bold type supported by multiple accounts or lines of evidence e.g. Oral history, newspaper accounts, photographs.

* Note: Some of the boundaries used for this zone are at a lower altitude than those used in the *Sustainable Rivers Audit*

Figure 14.2

Historical Records for Native Fish in the Campaspe River Catchment



Photograph 14.2 Macquarie Perch at Redesdale



Photo CR1: A Macquarie perch caught by Keith Henderson from the Campaspe River at Redesdale in 1921. Up to the 1930s Keith considered the Coliban and Campaspe to have been two of the best rivers in Victoria for Macquarie perch. Around 1910 when he was a boy the species was so prolific in the Axe Creek that they could when schooling be killed with sticks. By the 1960s Macquarie perch were extinct in the Campaspe catchment. Photo courtesy of Mrs Lyn Allan.

Photograph 14.3 Murray Cod at Redesdale



A Murray cod caught by Keith Henderson from the Campaspe River at Redesdale, 1947. Cod were once very common in the rivers and larger creeks in the slopes zone of the Campaspe catchment. Both Keith Henderson and Jock Nicholson also recalled the past presence of Trout cod. By the time this photo was taken Murray cod were rare at Redesdale and Trout cod extinct. Photo courtesy of Mrs Lyn Allan.

14.3 The Changes

14.3.1 *Changes to Native Fish Distribution and Abundance*

In the slopes zone an early decline was reported in the fish populations of the creeks near Heathcote such as the Wild Duck. Previously reported to have contained 'cod', 'grunter', Catfish and Blackfish, by 1909 a local resident reported that they now contained 'useless blackfish, and a few bream and cod, which are rarely caught' (*Argus*, 8 January 1909). A newspaper account recorded occasional catches of cod taking place near Redesdale in 1933 (*Argus*, 21 December 1933), a clear reduction in abundance compared to earlier accounts. The decline in the Macquarie perch population was such that in 1936 fish were translocated from the Broken River to the Coliban River to bolster the population and another attempt was made in 1962 (Cadwallader, 1981). Keith Henderson indicated that by 1950:

Murray cod were becoming scarce, and trout cod had not been heard of for many years. The last Murray cod known to be caught came from the Redesdale area of the Campaspe River in 1957 and weighed 7.7 kg. Macquarie perch were scarce after 1945, but were occasionally taken until 1962 (Anon., 1973).

By the 1970s the only native fish present were Blackfish (Anon., 1973).

In the lowland zone a notable decline in the fishery was reported at the end of World War One. A correspondent to the *Argus* wrote:

The Campaspe river, from the Coliban, near Redesdale, right through to Echuca, where it flows into the Murray, was always, up to within about four years ago, one of the best rivers in Victoria for bream angling, cod flashing, and blackfish. But now a man might flash from daylight to dark, using spoon, kidney, or propeller spinner, without a touch (*Argus*, 3 February 1920).

Golden perch and Murray cod remained reasonably common at Goornong into the 1930s but, after a flood in 1939 which stranded large numbers of fish, they became scarce (Read, OH 137; Ken Read, pers. com.). By the end 1930s the larger native fish were scarce near Axedale (Taig, OH 135); by the 1940s Golden perch and Catfish were scarce near Elmore; and Macquarie perch and Blackfish were rare (Major, OH 138). Trout cod were last reported in the Campaspe River in 1932 (*Argus*, 5 February 1932).

14.3.2 *Changes to Habitat*

Changes to the ecology of the Campaspe catchment transpired shortly after the arrival of Europeans. Some tree clearing occurred as soon as the pastoralists commenced grazing, which accelerated with the subdivision of selections, which then drove the need for more intensive stocking of the land. Alluvial mining on the Mclvor Creek in the Heathcote area had a drastic effect on the aquatic and terrestrial environments through the direct destruction of the stream beds and clearing of vegetation (Flett, 1979). An early introduction to the catchment was the rabbit which escaped from an enclosure at Castlemaine in 1863 and by 1881 had over-run the Heathcote area (*The Mclvor Times and Rodney Advertiser*, 31 August 1881). Around the time of the First World War further land clearing occurred and this, along with the activity of rabbits and overgrazing, resulted in extensive erosion being noted in government reports by 1949 (Russell & Long, 2007). In 1939 a major flood deposited large volumes of silt in the Campaspe River near Axedale and Goornong, as well as stranding large numbers of fish (Colvin, OH 136; Read, OH 137). Silting of the holes near Redesdale was linked to a decline in native fish populations (Anon., 1973). Clearing of the vegetation also resulted in the saline water table rising, initiating dryland salinity and vegetation dieback, notably in the Axe Creek area (Lorimer & Schoknecht, 1987).

The upper Campaspe was amongst the first areas in Victoria into which alien fish species were introduced. This was driven by the lack of large native fish created by the waterfall barriers near Metcalf and Barfold. In December 1872, 430 Brown trout from the Ballarat Acclimatisation Society were released into the upper Coliban River, with further releases taking place in 1875 and 1881. By 1895 the trout had become established in local streams and were eventually caught in numbers as far downstream as Redesdale (Kyneton Historical Society records; *Mount Alexander Mail*, 12 January 1911; *Argus*, 21 December 1933). A volunteer hatchery was established by the Kyneton Anglers Club in 1924 which, along with government releases, maintained the trout population (Ritchie, 1988; Clements, 1988).

Redfin perch were liberated in the Campaspe River in 1875 (Kyneton Historical Society records) and the state Water Supply Department introduced them into Malmsbury Reservoir to control crayfish (*Argus*, 22 February 1893). They became abundant in the reservoirs in the upland zone, and were very common in the Malmsbury area by 1911 (*Mount Alexander Mail*, 14 December 1911). A newspaper account suggests that 'perch' were present in the slopes zone at the Campaspe/Coliban junction in 1911, but were not as common as the native fish, indicating that the 'perch' were Redfin perch (*Mount Alexander Mail*, 5 January 1911). By the 1930s Redfin perch formed the bulk of the catch near Axedale and at Elmore (Taig, OH 135; Major, OH 138; *Argus*, 29 December 1945). Tench were also introduced into the Campaspe River Catchment being first reported near in the Coliban River in 1917 (*Mount Alexander Mail*, 20 November 1917). By the 1940s they were abundant at Rochester (Major, OH 138). 'Carp' which were probably Goldfish, were released into the Coliban River in 1873 (*Argus*, 21 August 1873) and the description of the capture of a carp-like fish at Strathallan in 1914 suggests that Goldfish were present in the lower Campaspe by that time (*West Australian*, 7 March 1914). In the 1970s European carp arrived in the lowland zone and eventually gained access to the slopes zone in Lake Eppalock, probably through their use as bait by anglers.

In 1865 construction commenced on the Malmsbury Reservoir on the Coliban River to supply the burgeoning population of Bendigo with water. After its completion in 1877, water was diverted to the Malmsbury Reservoir from the Coliban River to Bendigo. This deprived the Campaspe River of some of its flow, from what was its most reliable source, given that the upper Campaspe River itself was highly variable. Further water storages were constructed at Upper Coliban, in 1903, and at Lauriston, in 1941, resulting in the flow in the Campaspe River below Redesdale becoming increasingly regulated and the total flow reduced (Russell & Long, 2007). In 1961 work commenced on the Eppalock Reservoir just upstream of Axedale on the Campaspe River with the intention of providing additional water to Bendigo as well as irrigation releases down the river itself. It was completed in 1963. This has been suggested to have been the final blow to the relic Macquarie perch population, flooding out the best remaining habitat (Anon., 1973). It also dramatically increased the regulation of flows in the river as well as thermally polluting the river for some distance downstream (Ryan *et al.*, 2001).

The rivers feeding Lake Eppalock now only contribute about 10% of the flows they did a few decades ago. This is due to decreases in rainfall, water diversions and retention of runoff in numerous farm dams. In addition past degradation of the landscape resulted in the loss of considerable subsoil water. Recent actions to improve vegetation cover, while being undertaken for the long term benefit of the catchment, have been suggested as reducing runoff. It is estimated that it could take up to 60 years of subsoil recharge before runoff returns to something resembling natural conditions (Russell & Long, 2007). Below Lake Eppalock excessively high, cool flows for irrigation during summer and low flows held back for storage during winter have dramatically altered invertebrate populations, a source of food for fish, as well as increasing sedimentation (Humphries & Cook, 2004).

14.4 The Current Situation

The *Sustainable Rivers Audit* concluded that 'the Campaspe Valley fish community was in Extremely Poor Condition. The community had lost most of its native species richness, and alien species contributed most of the biomass and abundance' (Davies *et al.*, 2008).

In terms of native fish populations it scored equal lowest in the entire Murray-Darling Basin, along with the Goulburn catchment, with the fish fauna being dominated by introduced species. Substantial stockings of Murray cod and Golden perch have occurred, particularly at Elmore and downstream, and while populations of both are present, there is no evidence of natural reproduction occurring. This seems to be due to the regulated flow conditions, so their populations are maintained by ongoing hatchery releases (Humphries & King, 2004).

During the early 1990s releases of hatchery produced Trout cod and Macquarie perch occurred in the Coliban River downstream of Malmsbury Reservoir. In subsequent years anglers reported the capture of a few individuals. The overall poor survival may have been the product of a severe drought at the time. Greater success was achieved in Upper Coliban Reservoir where hatchery produced Macquarie perch were released and survived well. Reports from anglers suggested that some reproduction may have occurred in the inflowing Coliban River, with a number of very small perch being reported captured some years after the initial liberation. During the recent drought Upper Coliban Reservoir went dry in early 2007 and a small number of adult Macquarie perch were rescued and placed in Lake Eppalock. As a consequence the Macquarie perch population in the Upper Coliban Reservoir was lost.

14.5 Newspaper Highlights

Argus, 24 November 1856

Fish. – The Loddon and Campaspe abound with excellent fish, and we are pleased to see that an effort is being made to supply our market with this most healthy and desirable article of food. A few days since cod fish from the Campaspe were sold in the township at 1s. 6d. per lb. The fishing season is now commencing, and in about a month cod fish will be plentiful in the Campaspe. They have been caught, we are told, in the river weighing fifteen pounds each, but the usual weight is from four to five pounds – Miners Right.

Argus, 16 February 1869

With reference to the late cases of supposed fish-poisoning by the pollution of the Yarra, a correspondent writes to us from Malmsbury to say, that a day or two ago after the late severe thunderstorm, numbers of dead fish, chiefly cod, were found floating in the various waterholes of the Campaspe, in the neighborhood of Redesdale.

Sydney Morning Herald, 29 April 1870

The following somewhat remarkable story is told by the Rodney Advertiser: – “A party of young men went out on Good Friday, from Heathcote, to the Wild Duck Creek, on a shooting and fishing excursion, and at a spot in the creek just below Mr. Itzerott’s farm they found a number of Murray cod swimming about with their noses just awash at the surface of the water: they shot six of the fish, and recovered the whole of them by one of the party going in for them when shot. The total weight of the six fish was 76 lb., the largest weighed 17 lb. Besides this fine take of cod, the party secured some other fish, such as grunners or catfish and blackfish, which like the cod were swimming about on the surface of the water in great numbers. We are informed by Mr. Itzerott that on the morning of Saturday he went down to the creek and saw fourteen or fifteen cod, weighing from 10 lb. to 15 lb. each, in shallow water, among some rocks; he took hold of them, one at a time, but they slipped out of his hands with a violent jerk, and after several in-effectual attempts to land one of them he went up to his house and procured a knife, he then went down again, the fish were there still, and he managed to secure two about 14 lb. each, by sticking his knife under their gills, and then pulling them out. During the week the creek has been well watched by sportsmen, some armed with guns and some with spears. Several parties have thus secured a fish or two, but it would appear that this novel kind of sport is all over for the present, as the fish have returned to their old levels, or gone down the creek for the benefit of their health. It is generally supposed that during the late heavy rains, while the creek was up, the fish came up from the Campaspe, and the water in the creek being rather turbid from the washings from the ploughed land and farms, had sickened the fish, and caused them to swim as described.”

Argus, 12 September 1870

“Fishing,” says the Kyneton Guardian, “was made easy to such as cared to be at the trouble of taking a bucket to the racecourse on Friday and pick up the numerous blackfish stranded by the flood, and left high and dry among the grass, oven at some distance from the banks of the Campaspe.”

Kyneton Guardian, 15 February 1900

Angling: - Messrs. Clark and Metcalf, senrs., spent a night fishing in the Redesdale district last week, and were very successful. Mr. Metcalf securing several nice cod and bream, and Mr. Clark landed a cod of eighteen pounds.

Argus, 20 November 1908

The Silver Perch. Messrs. Marshall and Sarman (Castlemaine) send a fish which is caught both in the Coliban and Campaspe streams. Some local anglers say that it is a bream, others that it belongs to the perch family. The latter theory is correct. It is the silver perch (*Terapon ellipticus*), caught up to 5lb. in weight in western rivers of New South Wales, but seldom found so far south in Victoria. In the Murray it is generally called the silver bream.

Mount Alexander Mail, 5 January 1911

Messrs. Timmins and Party went out to the junction of the Coliban and Campaspe for two days' fishing last week. They got about 50 lbs of nice bream and cod, and one perch 3 lb. It would be interesting to get the total weight of the fish taken from the Coliban and Campaspe since the season opened. Probably there have been tons taken out, as the streams have been visited by scores of anglers day and night during the holidays, as well as before, some getting very good hauls.

Mount Alexander Mail, 12 January 1911

Mr. R. T. Oliver hooked five nice trout in the Coliban last week, the weights being: - 2 lb 7 ozs; 1 ½ lb; 1 lb 6 ozs; 1 ¾ lb; and 2 lb 6 ozs, making 9 lb 7 ozs in all, which is a very satisfactory haul for one week. Messrs. Malone and Ealey had a few days' fishing last week at Horseshoe Bend, and besides getting some good bream, they got three nice cod, one 13 ½ lb, one 5 lb, and one 2 ½ lb. A fisherman from Bendigo got a cod in the same hole weighing 41 lb, which he weighed at Mrs. Wilson's Hotel at Lyal. Fish like these are worth going a journey for.

Mount Alexander Mail, 7 February 1911

A novel fishing match took place on Saturday on the Coliban River below Lyal. Mr. M. Cluning, of Castlemaine, challenged Mr. H. Roberts, of this district, to fish him for the championship of the district [but it is not known how either man aspires to the honor of being champion]. The Castlemaineite was armed with every description of bait and tackle, while our local man had spent from Wednesday night till Saturday night, hunting up every conceivable bait from rabbit's liver to the common earthworm and was san of pulling off the belt. They started after the rain ceased, about 3.30 p.m., and came home on Sunday, when they sent the writer to weigh their respective catches. Mr. Roberts' catch turned the scale at 9 ½ lbs, and Mr. Cluning's at 12 ½ lbs., so that Castlemaine won by 3 lbs. The fish were a splendid sample of bream, from ½ lb. to a little over 1 lb., and one cod under 2 lbs., and the quality can be vouched for, as both gentlemen gave the writer about 6 lbs. between them [so he is anxious to hear of another challenge match taking place]. The challenge brings up memories of a picture to be seen in the bar of an hotel in New South Wales, where about 20 men are shown with their glasses charged in the bar, and their mouths open, and bent down with laughter, and the writing below says, "Of course the joker is paying for the drinks." Of course our local champion found the turn out, but he is pleased that he gave his opponent a close go, but luck was against him.

Argus, 17 March 1911

Murray Trout. / Another Note. Mr. W. Wilson (Castlemaine) sends the following note: "I have caught dozens of Murray trout in the Coliban and cod at the same time. The difference was easily seen. The head of the trout is a different shape, and the mouth is smaller. I know of no better eating fish than trout. I have never heard of one being killed that weighed more than 10lb."

Mount Alexander Mail, 5 December 1911

Mr. J. Oliver hooked a 3 lb. cod on Friday below the falls, and Mr. R. Oliver one 2 lb. A large body of anglers were out on Friday and Saturday nights, but no hauls of any consequence were made, only a few cod and bream. Rumor hath it that the season opened two months ago along the Coliban and Campaspe, but the writer considers it as a joke, as knights of the rod are too true sports to fish out of season.

West Australian, 7 March 1914

While fishing in the Campaspe (Vic.) above the Strathallen bridge, Mr. P. Gorsian landed a fish which for beauty points eclipsed the party's large haul of cod, perch, bream, and blackfish. The fish was of a brilliant golden colour, with unusually large scales, the size of a sixpenny piece. Its mouth was small and peculiarly pursed. It was caught with a worm bait, and was undoubtedly a beautiful fish.

Mount Alexander Mail, 2 February 1915

Sensational hauls of fish have been conspicuous by their absence this year, although a considerable quantity of worms have been drowned. Yet that ardent angler still lives on hopes of getting a “whopper,” and the streams are lined morning and night. A few nice trout and perch have been caught. A local angler got a 3 lb. trout in the Billy Goat hole, and a 32 lb. cod. I am informed on very good authority, was murdered out at the Dead Pig on the Campaspe. The bait used was box sapling. From the same source it is learned that a 62 pounder was massacred in the Cat and Kittens, near Lyal.

Western Mail, 13 April 1917.

/ A party of three anglers paid a visit to the Campaspe, about five miles above Echuca, with gratifying results, the total catch being 45 fish for three hours fishing weighing 92lb. They included cod, perch and butterfish. One of the party, Mr. W. T. Tonks, accounted for 16 fish, averaging 2½lb.

Argus, 5 February 1932

Campaspe River Fish. S.M. of Koyuga is puzzled by the native fish of the Campaspe. “Are there two different species of Murray cod?” he asks. “Because the markings of the large Murray cod and the spotted kind called ‘Murray trout’ are quite different.” About 50 years ago McCoy pointed out that the difference in appearance was sexual, the female fish changing much as spawning time approached. T. C. Roughley in his book respects the statement and it is worth pointing out that the first rate colour plate in the “Fishes of Australia” shows the spotted cod which fisherman of the Murrumbidgee called “Murray trout” and regard it as a different species. S.M. says that he knows the golden perch which used to be plentiful in the Campaspe, the black perch and the silver perch or “grunter,” but not Macquarie perch. His black perch is usually called in Victoria a “Murray bream” is the Macquarie.

14.6 Campaspe River Catchment Oral Histories

The following oral histories (OH 132-138) mostly discuss the Campaspe River Catchment.

OH 132

Graham Wait of Metcalf provided these comments in July 2007

My mum grew up at the Campaspe, she grew up near Barfold, born in 1900. She talked about catching the Catfish and the Blackfish. She used to mention these Blackfish, she said they were beautiful to eat, and that she used to get the Catfish.

OH 133

Kevin Wilson of Chewton provided these comments in July 2007.

The cod and the bream, up as far as the Coliban as far as I know they wouldn't have got up past the Coliban Falls, down in Barber's. I know the Blackfish were in there, my father did catch them around Metcalf and Malmsbury, never grew to be a big fish. I know in the Loddon up above Guildford there was a hole known as the 'cod hole'. The Dalmenicos had photos of the cod caught out of the cod hole at Guildford. They were caught a long time ago.

OH 134

George East of Emberton was interviewed in July 2007 at an age of 76 years.

My ancestors settled here in 1860, right where I'm living now in Emberton. They originally worked for Mitchell. My father and uncle, George and Alex East they used to catch plenty of cod and bream, no problem feeding the family. They said the Catfish were caught in the Campaspe, from Redesdale up to the falls at Barfold. They never spoke of yellowbelly in the area. That was when the river used to run. When they built Eppalock that stopped all the fish from coming up the river.

Where I am I've seen the Campaspe come out a hundred meters out over the banks, but it's been a while since I've seen that. There was a property down in Emberton where there was a long hole, its still there. My dad and uncle once stunned some trout by firing a rifle near them. The best cod I've heard of was by a bloke by the name of Jim McNaught up at Patho. He knocked one on the head in a channel with a shovel, in the late 1940s. It weighed 127 pound.

OH 135

Una Taig of Bendigo was interviewed in December 2007 at an age of 78 years.

I'm 78, grew up in Axedale. In the river there were cod, redfin and a lot of tench. From memory there were a few Golden perch, yellowbelly is what we knew them as. I'm not absolutely sure if there were any grunter, I think there was a few. That would be going back 70 years, a fish was so common in our household, my father was a keen fisherman. Sometimes they would go out to Quinn's Creek, dad used to bring the Blackfish home from there, they were beautiful to eat, he got plenty out there. But in the river, in my day we got redfin more than anything.

OH 136

John Colvin of Axedale was interviewed in December 2007 at an age of 77 years.

My father used to get the codfish here in the Campaspe, that was in the late 1930s, and the bream, they were pretty common. I've heard of the Catfish here too. There were Blackfish in the Mosquito Creek, up to the falls, it's a creek on the western side of Eppalock, it goes into the river a mile up from here, pretty brackish. 1939 was known for an extraordinary flood event, that was Easter 1939. There was major floods in the Axe Creek, Mosquito Creek and Sweenys Creek, that's when there were changes in the river. But before that my brother

told me about a small flood that washed all the sheep manure into the river and it was killing the fish. He said he could go down and just put his hands on them, he told me that.

OH 137

Ken Read of Goornong was interviewed in December 2007 at an age of 80 years.

I was born in 1928, grew up here around Gornong. The old people told me that they used to get the Blackfish in the Forrest Creek, it joins the Campaspe at Jurrandown, now it's all silted up. There were some blokes that used to put some wire netting traps in the Campaspe here on my property, I occasionally helped myself to some of the fish they'd catch, they were yellowbelly.

There was a flood in 1939, it started in one of the smaller catchments. Well it smothered the river, there was dead cod washed up all over the paddocks here. It was a sudden flood and when the river went down people were picking them up with pitchforks, some were still flapping, they were trapped in all the depressions. They were stranded and they picked up some big cod, they were trying to get out of the muddy water. The particular stream that formed the flood, out towards the 'wild duck', it was a localized flood, it wiped them out, that's when the Campaspe silted up. The Axe Creek, well it would have to be a saltwater fish to live in it now, it's a major contributor of salt to the Campaspe.

OH 138

Ken Major of Rochester was interviewed in December 2007 at an age of 73 years.

The Campaspe, I've lived on it for 73 years. Me grandfather arrived here in 1903, me father was born in 1905, I was born here in 1934. Dad was a very keen fisherman, but didn't talk about the river much. Halfway between Elmore and Rochester is the Campaspe Weir. In 1940 Rochester ran short of water, it was a big drought. In the drought they had the blokes, and even the scouts digging in between the holes to get the water down to the town. It drained all the holes, you could walk across it. My grandfather and father talked about going up the Murray with a horse and gig. They used the knob of a german sausage and the spine out of a bullock's back, up towards Stewarts Bridge. They were cod mainly, quite a lot of cod. They also used to go out and catch cod in the Kanielle Creek, but it's all silted up now, there's only a bit of a depression in it.

Dad used to take me down fishing when I was a kid, before the big drought started. They used to go fishing for cod and that in the Campaspe Weir, and they got a lot of redfin and tench. I can remember we did get a cod of about twenty pound when I was about 5. There were people there called Scanlen, they'd use their boat, dad and old uncle Bert. After the drought the cod didn't recover much, they had got hammered. When I was a kid they used to take me fishing down near the water tower here. They used to get a few yellowbelly, they mentioned them but I hadn't caught one. We did get the perch, the Silver perch, they were most common at probably half a pound.

Down towards Strathallen my dad did catch a few yellowbelly there which I saw, not many, and a lot of redfin. I did hear of Catfish above the weir, but never saw them. I've never heard of the Macquarie perch here, or the Blackfish. About the only Blackfish I've seen is up Castlemaine way, me grandfather took me out there, only in the small creeks, and we'd get them at night, only about six inches long. We caught one at Picnic Point once. I can remember this young bloke, in the early 1950s caught this trout 4 to 5 pound just below the weir.