

Fishery in the Life of the Nomadic Population of the Northern Black Sea Area in the Early Iron Age

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It is commonly believed that fishing is unusual for traditional nomads as they, being herdsmen, believed fish to be inedible and instead mainly ate meat and drank milk. Consumption of fish by the barbarian population in the northern Black Sea area in the early Iron Age was usually limited geographically to the forest steppe zone. The appearance of fishery in the steppe zone was thought to be connected with either the Greeks of Olbia, Chersonesos, the Bosporan Kingdom, etc. or with the post-Scythian population, for example that of Scythia Minor on the Dnieper from the 2nd century BC.¹ However, archaeological research of recent years, in particular finds from Scythian settlements on both banks of the Dnieper² dated to the 4th century BC, as well as the results of the study of the economic history of the steppe Scythians – in particular their domestic production³ – and an application of general patterns of nomadic economy to the interpretation, allow us to take a fresh view of this problem.

Firstly, it is possible to pinpoint an appreciably earlier appearance of fishery in the steppe zone of Scythia than is normally assumed; secondly, we may confidently connect fish processing with the Scythians among the population of the steppes of the northern Black Sea region; thirdly, it can be demonstrated that not only Eastern civilization, but also the Greek way of life influenced the Scythian fishery. The following sources are available for our reconstruction of nomadic fishery:

1. Results of the reconstruction of the palaeoecological situation in the northern Black Sea region and of nomadic palaeoeconomics.
2. Written sources and ethnographic parallels.
3. Results of field investigations of the material cultures of early nomads and a semantic analysis thereof.

Taken together, all three sources testify to the favourable conditions for the development of fishery in any form. In addition to the utilitarian applicability of nomadic fishery, its cultic aspects may also be considered.

1. *Palaeoenvironment*

There is an extensive river system in the territory of the northern Black Sea steppe zone. In every respect, the organization of a pastoral economy depends on water. Some researchers have constructed a typology of nomadic societies based on whether their settlements were located near water resources or not.⁴ Almost all the rivers of the northern Black Sea region had rich natural freshwater fish resources. The greatest rivers are the Dniester and the *Borysthenes* (Dnieper). Both rivers are especially abundant in fish. The Lower Dnieper (the part of the river *along* and *after* the rapids but before the estuary) traverses the Ukrainian crystal shield. So, in this place the Dnieper provides very clean water, which is necessary for the sturgeons migrating upstream to spawn. A similar situation can be found in the *Hypanis* (Southern Bug), which is another big river West of the Dnieper. The Southern Bug also has its own granite bed and rapids and it was also famous for its shoals of migrating fish. Now both rivers flow together in their estuaries and form the giant combined Dnieper-Bug estuary (today c. 800 km²) where edible fish are rich in number and variety. The *Borysthenes* (Dnieper) is a typical river of the plain. It features numerous small islands and a system of channels in which fish abounded. Late Medieval sources confirm this.⁵ The Greeks had understood these natural conditions as can be gleaned from Herodotos' well-known words about the abundance of fish in Scythia. Herodotos also noted the abundance of salt at the Dnieper's estuary (Hdt. 4.53); salt is of course important for processing fish. Near two major crossings over the river at Chortitsa and Kamenka, which were also important trade routes, there arose a number of hill forts. Kamenka,⁶ Kapulovka⁷ and Sovutinskoe⁸ are the first three sites of Scythian settled life. They appeared in the late 5th to the early 4th centuries BC. Already by the end of the 4th century more than 120 settlements had been established on both banks of the Dnieper.⁹

When the Scythian inhabitants of the dry steppe zone appeared in the northern Black Sea region they were surprised at the sheer number of rivers. Not surprisingly there is a word *mal*, borrowed from Scythian and meaning, "deep stagnant water",¹⁰ which is absent from the terms for waterways in the Ossetian language. However, it is not yet possible to extract much paleo-economic information from such a philological analysis.

Judging the water resources of steppe Scythia in their totality, it can be concluded that the northern Black Sea region in the early Iron Age was a zone abounding in fresh water, providing favourable conditions for the development of fishing based on the fishing of fresh water and migrating salt water fish.

Written sources concerning Scythian fishery are not numerous. Herodotos, who had visited the northern Black Sea region in the early years of the Greek colonization, devoted special attention to the description of the natural resources of the country (4.53, trans. A.D. Godley):

The fourth is the Borysthenes river. This is the next greatest after the Istros, and the most productive, in our judgment, not only of the Scythian but of all rivers, except the Egyptian Nile, with which no other river can be compared. But of the rest, the Borysthenes is the most productive; it provides the finest and best-nurturing pasture lands for beasts, and the fish in it are beyond all in their excellence and abundance. Its water is most sweet to drink, flowing with a clear current, whereas the other rivers are turbid. There is excellent soil on its banks, and very rich grass where the land is not planted; and self-formed crusts of salt abound at its mouth; it provides great spineless fish, called *antakaïos*, for salting, and many other wonderful things besides.

In the opinion of the commentators on Herodotos, the *antakaïos* is a fish pertaining to the sturgeon family.¹¹ This family consists of sturgeon, white sturgeon or beluga (*huso huso*, 17 species of which are known today), and starry sturgeon (*acipenser stellatus*). All these migratory fish are found in the Black and Azov Seas. White sturgeons with a length up to 3 m and a weight of up to 200 kg were well known to the Greeks as edible fish from their native Adriatic Sea.¹² Sturgeons prevailed among fish images on Scythian metal objects.

Another favorite “Scythian” fish type was the catfish. This monster with a length of up to 5 m, weighing up to 300 kg, and found in the Dnieper, was described by Pliny. “In Borysthenes catfish are found of outstanding size without bones or cartilages and with very tasty meat”. Meat of these fish was not only tasty, but also had medicinal value. Pliny mentions no fewer than 300 recipes for medicine which included various kinds of catfish (Plin. *HN* 9.45). This fish was also depicted in Scythian tattoos and ornaments (Fig. 1).

2. *Archaeological material, images*

Images of fish were disseminated in the animal style art of the early nomads long before their occurrence in the steppes of the northern Black Sea region. Though rare in the art of the Eurasian nomads, they can be found in the culture of the Altai Scythians. Images of fish decorated felt coverings of saddles from Barrow 1 in the burial grounds of Ak-Alakha 1¹³ (Fig. 1.2). The head of a fish was pictured on an object from the 2nd Bašadar Barrow.¹⁴ Images of a fish were among the tattoos on a man’s fore-arm from the 2nd Pazyryk Barrow¹⁵ (Fig. 1.1).

Images of fish may be an element that connects the culture of the northern Black Sea region Scythians with the culture of the nomads of the “depths of Asia”. In the animal style of the Eurasian nomads the depiction of an eagle tormenting a fish was popular (Fig. 2.8).¹⁶ Ornithologists identify this bird as a *sea eagle*. It is the largest of the Eurasian birds of prey. Sea eagles live near expanses of water and feed on fish. The fish in the depiction is most likely a

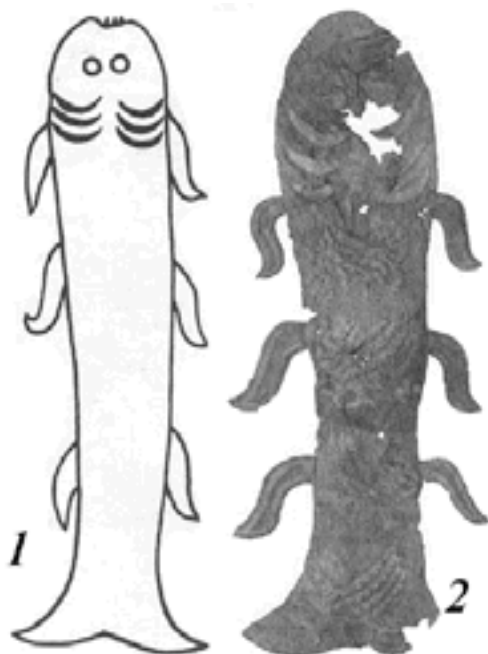


Fig. 1. Images of a sheat-fish. 1: tattoo of the body of the man from the 2nd Pazyryk barrow (by S. Rudenko); 2: decoration of the felt coverings of the saddles from a barrow, No. 1 burial grounds Ak-Alakha 1 (Mountain Altai, 5th century BC) (by N. Polos'mak).

sturgeon. However, the strength of the sea eagle is greatly exaggerated here, as it even has a problem pulling a bream weighing 3-4 kg out of the water. When the bird has seized such a large fish, the sea eagle reaches land by swimming, flapping its wings on the water.¹⁷ These images conceal a double semantic meaning. A fish functions as a symbol of the nether world, while a bird (especially a "regal predator") is a symbol of the upper, heavenly sphere,¹⁸ and in the struggle of the two, the upper world prevails.¹⁹

The earliest archaeological evidence demonstrating that the Scythians of the northern Black Sea region depicted species found in the underwater world is found on gold plate sheeting covering wooden bowls. Such gold plates were found in Barrow 5 near the village of Archangel'sk in the Cherson region²⁰ (sea fish, Fig. 2.5), in the Solocha Barrow near Velikaja Znamenka in the Zaporozh'e region²¹ (river fish, Fig. 2.4), and in the Malaja Simbalka Barrow.²² All are dated to the end of the 5th century BC. A later development is images of fish on plates decorating horse harnesses. Two silver frontlets (with a gold covering, Fig. 2.6) derive from the Solocha barrow.²³ Bronze ornaments showing sturgeons were found in Barrow 2 near Malaja Lepeticha²⁴ (Fig. 2.2-3). In the forest steppe zone of the northern Black Sea region a gold frontlet with an image of a fish dated to the 4th century BC – the only such example – was found in Barrow 1 at the village of Volkovcy²⁵ (Fig. 2.7). Five cast bronze ornaments from a horse's harness with a fish motif were found in the looted Burial 2 of Barrow 1 near the village of Razdol'noe in the Crimea. The find is dated to the 5th century BC.²⁶

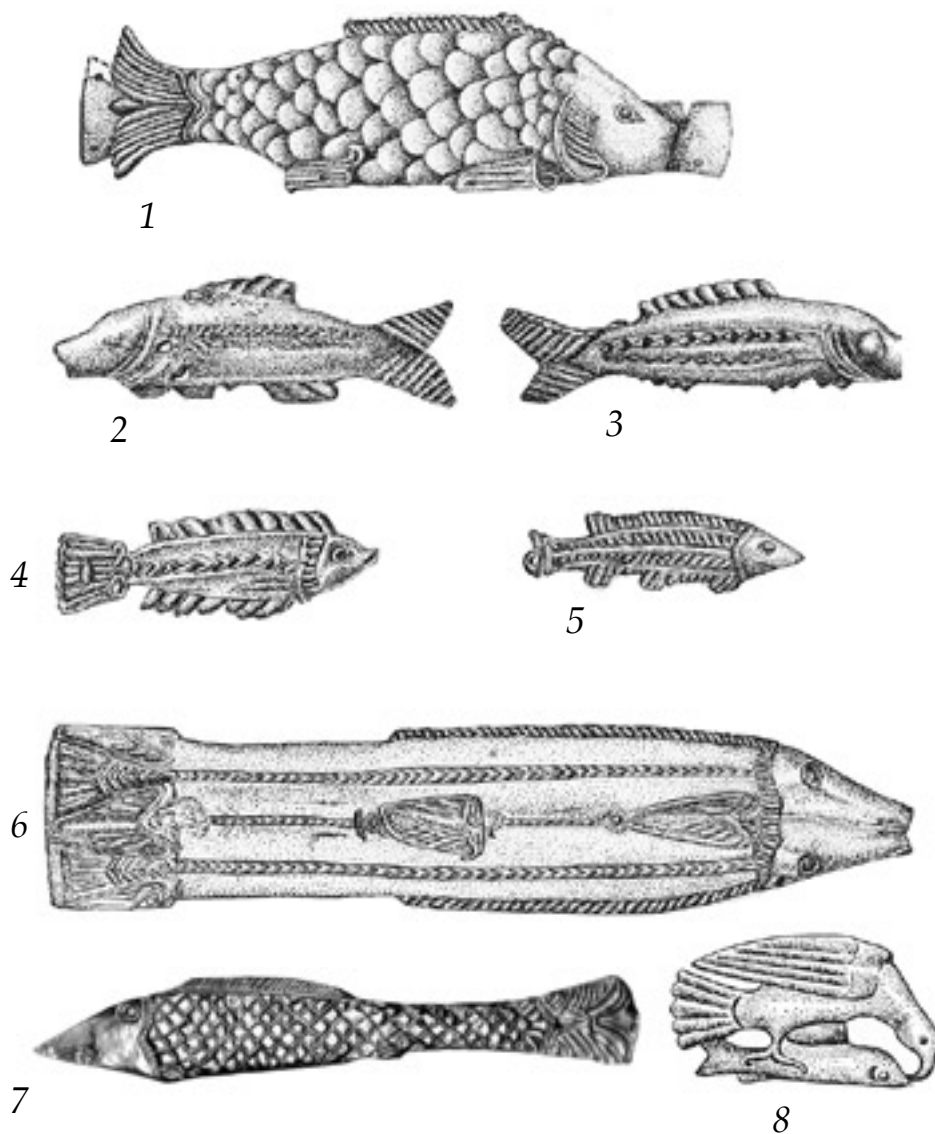


Fig. 2. 1: Decoration in bronze from shield, ca. 400 BC, from Ordžonikidze (Terenožkin, Il'inskaja, Chernenko & Mozolevski 1973, 171), 2-3: Decoration in bronze, from Malaja Lepetikha, 4th century BC (Il'inskaja & Terenožkin 1983, 150, 161), 4-5: Decorations in gold from wooden bowls, late 5th century BC. Fig. 2.4 from the Solocha barrow near Velikaja Znamenka (Mantsevič 1987, 96, N 68), Fig. 2.5 from Archangelsk (Kherson region) (Leskov 1972, 56, fig. 31, 32), 2.6: Gold plated silver frontlet from horse harness, from the Solocha barrow, 4th century BC (Mantsevič 1987, 39-42, N 13,16), 2.7: Gold frontlet from horse harness, from Volkovtsi, 4th century BC (Michel 1995, 217, K3), 2.8: Metal applique (Korol'kova 1998).

The uniquely realistic image of a pikeperch was found in Tomb 1 of the Barrow 12 groups of mine 22 at the village of Ordžonikidze near Dnepropetrovsk (Fig. 2.1). This plate decorated a warrior's shield. The burial dates to the transition from the 5th to the 4th century BC.²⁷

Summing up the evidence, in the steppe zone of the Black Sea region the first images of fish are found on wooden bowls (gold sheeting dated to the 5th century BC). In the late 5th to the early 4th century BC fish decorate horse harnesses and even warriors' shields. The fish images probably had an apotropaic character. But in addition to that, the very presence of the ornaments strengthened the protective function of shield and horse harness.

3. *Archaeological material, remains of fish and fishing equipment*

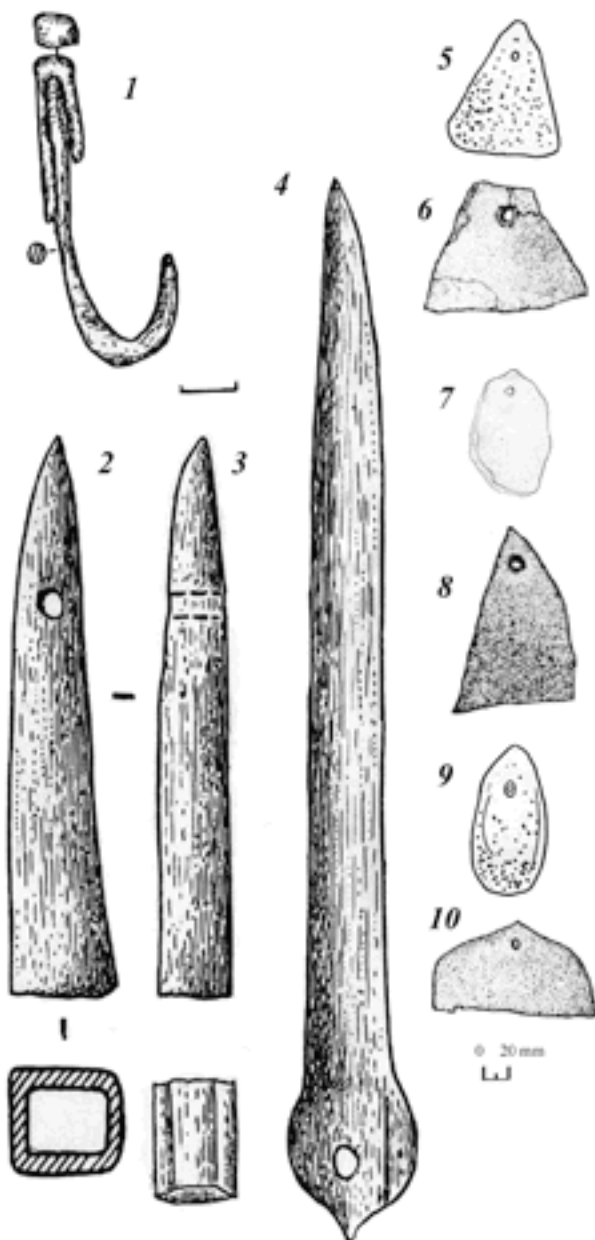
It is not possible to speak about domestic consumption of fish by the steppe Scythians until the 4th century BC. The late 5th to the early 4th century BC witness significant changes in the nomadic economy of the northern Black Sea region, as the economy of the steppe Scythians was transformed from a nomadic to a semi-settled one. Agriculture was practised and part of the nomadic population adopted a settled way of life.²⁸ The first settlements of steppe Scythians appeared in the Don and Dnieper regions. Finds from these settlements allow us to speak about the occurrence of fish as an element in the diet of their inhabitants. Material from the Elizavetovka and other settlements of the Don estuary testify to the occurrence of fishery in the Scythian steppe zone by the end of the 5th and during the 4th century BC.²⁹

Fish bones were found in household pits of the steppe Scythian settlements in the Dnieper area and occasionally in burials of the 5th century BC. In the settlement of Lysaja Gora, two household pits (Nos. 83, 110) were opened which were filled with bones and scales of fish. Fish bones were also found in Pit 1 in the settlement of Černeča. Bones of sturgeon of large and medium sizes predominated.³⁰

Reconstruction of the process of fishing based on archaeological material is difficult. However, during the period of spawning the quantity of fish increases so much that "hunting" them with bow and arrow does not seem to have been impossible. Finds of fish hooks in the cultural layer of the Kamenka hill fort allow us to speak about the catching of rather large fish with fishing-lines (Fig. 3.1). Fishing probably also utilised fixed nets, a technique generally considered the oldest.³¹

There is no archaeological evidence for trade in fish on the Dnieper in the 4th century BC. Such trade probably evolved to meet the needs of the Greeks for fish. In the delta of the Don, contacts between Greeks and "barbarians" developed earlier than in the Dnieper region. Therefore "barbarian" settlements with a fishing industry also appeared here earlier, namely in the 4th century BC.³² Approximately at the same time, fishing on the Dniester also started.³³ The transition to market oriented fishing is often associated with the introduction of large seines and fixed nets.

Fig. 3. 1: Fish hook (iron), 2-4: shuttles for knitting fishing nets (bone), 5-10: sinkers (fragments of amphorae walls).



Nets were most likely made of hemp or linen strings.³⁴ They were apparently knotted with either large or small meshes as seen on a real net found at Nikonion.³⁵ To ensure the net extended down to the bottom, sinkers were suspended at small intervals along its entire length. In Scythian contexts, sinkers were predominantly made from wall fragments of amphorae, with drilled holes. These have at times been found in excavations of ancient sites. In the Dnieper region such finds appear for the first time in the post-Scythian settle-

ments (Fig. 3.5-10). Among the finds from the settlement of Gavrilovka were plenty of bone objects, among them needles for making or mending fishing nets (Fig. 3.2-3). The abundance of fish bones, finds of sinkers for nets and large needles for making nets at sites dating from the 2nd century BC to the 2nd century AD³⁶ allow us to speak about a commercial character of fishing by the population in the post-Scythian settlements. Commercial fishing in the Dnieper region, as well as in the Don and Dniester regions, began under the influence of the Greeks.

4. Conclusions

1. The nomadic Scythians' familiarity with the underwater world developed long before it became a phenomenon in the steppe zones of the northern Black Sea region and at great distances from the latter area. Fish images are probably an element which connected the culture of the Scythians of the northern Black Sea with the material culture of the nomads from the "depths of Asia".
2. In the steppe zone, the first images of fish were found on the gold sheeting covering wooden vessels dated to the 5th century BC. By the late 5th to the early 4th century BC fish decorate horse harnesses and even shields. Fish images on a horse harness (frontlets and ornaments), not to mention a shield, have both apotropaic and physically protective functions.
3. Archaeological material from sites of the Scythian settled communities that appeared by the late 5th to the early 4th century BC allows us to speak about the occurrence of fish as a component in the diet of the steppe Scythians of the northern Black Sea. For nomads the fishing of freshwater fish was characteristic. This type of fish was a supplementary source of food for the steppe population as some of them went over to a settled life in the 4th century BC.
4. The introduction of market oriented fishing by the population of the steppe zone of the northern Black Sea area was, partly or wholly, in response to the Greek demand for fish.
5. The nomadic population of the Don and Dniester regions began fishing not only for domestic consumption but for trade in the 4th century BC, whereas the "barbarians" and *Mix-Hellenes* of the Lower Dnieper region started "commercial" fishing only in the 2nd century BC.

Notes

- 1 Grakov 1954, 115; Pogrebova 1958.
- 2 Grakov 1954, 115; Gavriljuk & Olenkovskij 1992.
- 3 Gavriljuk 1999.
- 4 Masanov 1989, 64.
- 5 Boplan 1990, 45.
- 6 Grakov 1954, Gavriljuk 1999.

- 7 Bodjanskij 1951.
- 8 Ostapenko 2001, 51-68.
- 9 Gavriljuk & Olenkovskij, 1992.
- 10 Abaev 1973, 68.
- 11 Dovatur, Šišova & Kallistov 1982, 282.
- 12 Lindberg 1971, 50.
- 13 Polos'mak 2001, 221.
- 14 Rudenko 1960, pl. CXVI.
- 15 Rudenko 1953, 136-41.
- 16 Korol'kova 1998.
- 17 Gavriljuk, Griščenko & Jablunovskaja-Griščenko 2001. The device of an eagle tormenting a dolphin cannot be "a sketch from nature". No bird of prey is physically capable of dealing with a dolphin in water or lifting it even the smallest distance out of the water. The adult dolphin (*tursiops truncatus*) can weigh up to 300-400 kg, *delphinus delphis* is a little smaller. Even the smallest Black Sea dolphin weighs 10 kg.
- 18 Tokarev (ed.) 1998.
- 19 Korol'kova 1998.
- 20 Leskov 1972, 56, figs. 31, 32.
- 21 Mancevič 1987, 96, note 68.
- 22 Alekseev 1995, 54.
- 23 From N.I. Veselovskij's excavation in 1912: Mancevič 1987, 39-42, notes 13, 16.
- 24 Il'inskaja & Terenožkin 1983, 150, 161.
- 25 From S.A. Mazaraki's excavation in 1897-1898: Il'inskaja & Terenožkin 1983, 326, 335.
- 26 Koltuchov, Kolotuchin & Kislyj 1994, 155.
- 27 Terenožkin, Il'inskaja, Černenko & Mozolevskij 1973, 171.
- 28 Gavriljuk 1999.
- 29 Žitnikov 1992, 72.
- 30 Gavriljuk, Bylkova & Kravčenko 1992, 22, 24, 75.
- 31 Zelenin 1991.
- 32 Žitnikov 1992, 72.
- 33 Brujako 1999.
- 34 Zelenin 1991, 106.
- 35 Brujako 1999.
- 36 Pogrebova 1958.

