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DELICACIES FROM THE SEA. A SELECTION OF DATA ON THE GENUS THUNNUS FROM MEDICAL AND OTHER SOURCES

The role of fish in the diet of Antiquity¹ and Byzantium² is regarded as vital. However, no statistical data

¹ A. Dalby, *Food in the ancient world from A to Z*, London-New York 2003 (hereinafter: *Food*), pp. 144-147, especially 144; J. Dumont, *La pêche du thon à Byzance à l'époque hellénistique*, „Revue des Études Anciennes”, vol. 78-79, 1976-1977, pp. 96-119. It should be remembered, however, that this view was questioned (still in the 80s of the last century) by Tom Gallant (*A fisherman's tale. An analysis of the potential productivity of fishing in the ancient world*, Gent 1985, passim). His research results were subsequently refuted and dismissed as too far-fetched. Lately, academics (cf. P. Horden, N. Purcell, *The Corrupting Sea. A Study of Mediterranean history*, Bodmin, Cornwall 2000, pp. 194-195; T. Bekker-Nielsen, *The technology and productivity of ancient sea fishing*, [in:] *Ancient fishing and fish processing in the Black Sea region*, ed. T. Bekker-Nielsen, Aarhus-Headington, Oxford-Oakville 2006, pp. 87-95; D. Mylona, *Fish-eating in Greece from the fifth century B.C. to the seventh century A.D. A story of impoverished fishermen and luxurious fish banquets*, Oxford 2008), have been trying to distance themselves from over-generalizing and tend to mitigate their opinions, still, however, concluding that the role of fish in diet was considerable.

² The role of fish in the Byzantine diet cf. M. Chrone-Vakalopoulos, A. Vakalopoulos, *Fishes and other aquatic species in Byzantine literature classification, terminology and scientific names*, „Byzantina Symmeikta”, vol. 18, 2008, pp. 123-157, especially 123-126; G. Dagron, *Poissons, pêcheurs et poissonniers de Constantinople*, [in:] *Constantinople and its hinterland*, eds. G. Dagron, C. Mango, Cambridge 1995, pp. 19-33; A. Dalby, *Flavours of Byzantium*, Blackawton, Totnes, Devon 2003 (hereinafter *Flavours*), pp. 66-69; idem, *Tastes of Byzantium. The cuisine of a legendary empire*, London-New York 2010, pp. 66-69; J. Koder, *Stew and salted meat – opulent normality in the diet of every day?*, [in:] *Eat, drink and be merry (Luke 12:19). Food and wine in Byzantium. In honour of Professor A.A.M. Bryer*, eds. L. Brubaker, K. Linardou, Aldershot, Hampshire 2007, p. 60; M. Kokoszko, K. Jagusiak, *Ryby dla Konstantynopola (IV-VII w.)*, „Acta Universitatis Lodzianensis. Folia Historica”, vol. 87, 2011, pp. 75-120, especially 89-93, 111-120; M. Kokoszko, *Smaki Konstantynopola* (hereinafter: *Smaki*), [in:] *Konstantynopol – Nowy Rzym. Miasto i ludzie w okresie wczesnobizantyńskim*, eds. M. J. Leszka, T. Woźnińska, Warszawa 2011, pp. 471-575, especially 510-516; Ph. Koukoules, *Byzantinon trophai kai pota*, „Epeteris tes Hetaireias Byzantinon Spoudon”, vol. 17, 1941 (hereinafter: *Trophai*), pp. 53-60, especially 53; idem, *Byzantinon bios kai politismos*, vol. V, *Hai trophai kai ta pota...*, Athènes 1952 (hereinafter: *Byzantinon*), pp. 79-86, especially 79; A. N. J. Louvaris, *Fast and abstinence in Byzantium*, [in:] *Feast, fast or famine. Food and drink in Byzantium*, eds. W. Mayer, S. Trzcionka, Brisbane 2005 (hereinafter: *Fast*), pp. 191, 194-197; S. Malmberg, *Visualising hierarchy*

regarding the popularity of individual species is available. The analogy with the present times based on the variety of source notes suggests that the most popular fish species for consumption purposes were the small fish called *afye*³, Skipjack tuna/bonito (*pelamydes*) and mackerels (*skombroi*)⁴. Surely, also tuna fish (*thynnnoi*) appeared on the market. Furthermore, people indulged in fresh European sea bass (or sea dace)⁵, called *labrakes* by the Greek, grey mullet (*mugil*)⁶, i.e. *kestreus* and *kephalos* species, red mullets referred to as *triglai*⁷, smelt (*fykides*), and other rock fish known in Greek as *petratioi ichtyes*⁸, as well as and definitely more shark meat⁹, i.e. *galeoil kynes*, than we eat these days. Nevertheless, good-quality fresh fish and fish preserves were relatively pricey. *Ex definitione*, they never constituted staple food which, both in Antiquity and Byzantium, was still dominated by cereal products, leguminous plants and a selection of vegetables and fruit. Hence the *opson*¹⁰ term, used customarily as regards fish and fish preserves. Good quality fresh

at imperial banquets, [in:] *Fast*, p. 17; M.L. Rautman, *The daily life in the Byzantine Empire*, Westport, Connecticut 2006, p. 75 etc.

³ M. Kokoszko, *Ryby i ich znaczenie w życiu codziennym ludzi późnego antyku i wczesnego Bizancjum (III-VII w.)*, Łódź 2005 (hereinafter: *Ryby*), pp. 25-32.

⁴ On the last two – A. Dalby, *Food*, pp. 58, 205, 336; G. Dagron, *op.cit.*, p. 57; M. Kokoszko, *Ryby*, pp. 246-250; M.L. Rautman, *op.cit.*, pp. 103, 172.

⁵ A. Dalby, *Food*, p. 48; idem, *Empire of pleasures. Luxury and indulgence in the Roman world*, London-New York 2000, p. 217; G. Dagron, *op.cit.*, p. 58; M. Kokoszko, *Ryby*, pp. 187-191; M.L. Rautman, *op.cit.*, p. 95.

⁶ A. Dalby, *Food*, pp. 168-169; G. Dagron, *op.cit.*, p. 58; M. Kokoszko, *Ryby*, pp. 141-145, 147-154 etc.

⁷ A. C. Andrews, *The Roman craze for surmullets*, „Classical World”, vol. 42, 1949, pp. 186-188; A. Dalby, *Food*, p. 280; idem, *Flavours*, pp. 67, 145, 148, 150 etc; M. Kokoszko, *Ryby*, pp. 358-364.

⁸ M. Kokoszko, *Ryby*, pp. 253-254.

⁹ A. Dalby, *Flavours*, p. 198; idem, *Food*, pp. 298-299; M. Kokoszko, *Ryby*, pp. 111-114, 185-187; idem, *Kilka słów o roli rekinów, galeoi (galeoi), w kuchni greckiej antyku i wczesnego Bizancjum*, „Przegląd Nauk Historycznych”, vol. 8, 2009, no 1, pp. 129-142.

¹⁰ The term has survived in the modern Greek term *psari* – Ph. Koukoules, *Trophai*, p. 53; idem, *Byzantinon*, p. 79.

fish was always treated as an exquisite (thus pricey and desirable) treat¹¹.

As it has already been mentioned, we have access to a wide range of literary sources providing information as regards fish¹². Apart from fine literature, this includes mostly the preserved work of Athenaeus of Naucratis, i.e. *Deipnosophistae*, and very significant, yet rarely analysed in detail by historians so far, medical literary sources, such as the works of Oribasius, Aëtius of Amida, Paul of Aegina and others¹³.

Numerous sources dating back to Antiquity and Byzantium mention fish of the *Thunnus* genus. As the framework of this study is not sufficient to provide an exhaustive analysis of the whole topic, we will concentrate only on two selected terms encountered in Greek sources which relate to this genus, i.e. *pelamys*¹⁴ and *thynnos*¹⁵ fish. In Greek sources, *pelamys* usually referred to sea fish, typically of considerable size¹⁶. Most probably, the authors quoting this name referred to the species known nowadays as Skipjack tuna or bonito¹⁷. One variant of the *pelamys* term is *palamis*, as mentioned by Aëtius of Amida¹⁸. The sources show that Greek authors were forced to contend with considerable difficulties when attempting to display the relations and differences between *pelamys* and *thynnos*. The analysis of the sources proves that they concentrated on the analogies. As a result, they merged both terms and treated them as development stages of the same species. In order to illustrate this issue, it is worth mentioning the preserved evidence provided by Sostratus and Oribasius. Sostratus claimed that not fully developed specimens of the same kind were referred to as *thynnis* or *pelamys*, the mature creatures were called *thynnos*, while those of considerable size were termed *orkynos*, and overgrown animals *appera* in the texts under the name *ketos*¹⁹. On the

other hand, Oribasius claimed that during the first stages of their lifecycle *pelamydes* are referred to as *pelamys mikra*. Larger ones were called *kybinopelamys* or *kybion*. When the fish develop and mature, they are referred to as *horaion*. The next development stage was called *tritomon kybion*. Even larger ones were called *orkyalos pelamys*. The final development stage (or maybe even a separate variety) was called *sarda pelamys*²⁰.

The source information leads us to a conclusion that *pelamydes* lived in the whole Mediterranean Sea and adjacent basins. They were caught in Spain, around Sicily and the Apennine Peninsula (Italy)²¹. However, considerable quantities of Skipjack tuna/bonito were caught in the vicinity of Byzantium. This may be concluded from the fact that most information regarding Skipjack tuna/bonito living in the Sea of Azov, Black Sea and in the Dardanelles can be encountered in the Greek authors' accounts. Aristotle, quoted by Athenaeus of Naucratis, claimed that this species could be found only in the Black Sea as it was born there²². Sophocles mentioned the *pelamys* species living in the same sea and in the Dardanelles²³. Galen of Pergamon also listed the Pontic area as the main place of their origin²⁴. Oribasius mentioned the Sea of Azov and the Black Sea as well²⁵. As regards the above, our data is organised by Strabo, who provided a systematic description of the Skipjack tuna's route between the Sea of Azov and the Dardanelles. According to him, the fish are born in the former and then migrate to the Black Sea. Then, the fish migrate south along the coast of Asia, towards the initial fisheries in the vicinity of Trapezus and Pharnacea. Another work of this author informs us that these fisheries were called *pelamydeia*²⁶. This results from the fact that, after they reached the north coasts of Asia Minor, their size makes it possible to catch them. However, they are still not big enough. Only after reaching Sinope, they are fully grown and can be used as raw material to manufacture *tarichos*, i.e. cured/salted fish²⁷. When they reach th

¹¹ A.A. Demosthenous, *The scholar and the partridge: attitudes relating to nutritional goods in the twelfth century from the letters of the scholar John Tzetzes*, [in:] *Fast*, p. 30. Though the conclusion concerns the times of Byzantium, it also seems to be applicable to the prior period. Cf. M. Kokoszko, *Smaki*, pp. 505-507.

¹² A source analysis cf. M. Kokoszko, *Ryby*, passim, especially 9-23, 391-392.

¹³ On their role in the detailed analysis of the problem researched into in the present study cf. M. Kokoszko, *Ryby*, passim, especially 392-396; idem, *Smaki*, pp. 507-508.

¹⁴ M. Kokoszko, *Ryby*, pp. 246-250.

¹⁵ Ibidem, pp. 334-353.

¹⁶ Jacques Dumont (*op.cit.*, p. 103) defines the *pelamys* as a young tuna at the age of approximately one year. Cf. the definition by Jacques André (*L'alimentation et la cuisine à Rome*, Paris 1961, p. 104)

¹⁷ A. Dalby, *Food*, p. 336.

¹⁸ *Aetiou Amidenou logos enatos*, IX, 30, 92-94, ed. S. Zervos, „Athena”, vol. 23, 1911, pp. 273-390.

¹⁹ *Athenaei Naucratis dipnosophistarum libri XV*, VII 303 b (66, 4-8, Kaibel), ed. G. Kaibel, vol. I-III, Lipsiae-Berolini 1887-1890 (hereinafter: Athenaeus, *Deipnosophistae*).

²⁰ *Oribasii collectionum medicorum reliquiae*, II, 58, 136, 1-143, 1, ed. I. Raeder, vol. I-IV, Lipsiae-Berolini 1928-1933 (hereinafter: Oribasius, *Collectiones medicae*).

²¹ There is a recipe for a fresh *pelamys* in *De re coquinaria* – cf. *Apicius. A critical edition with an introduction and an English translation of the Latin recipe text Apicius*, X, 1, 13, ed. Ch. Grocock, S. Grainger, Blackawton, Totnes, Devon 2006.

²² Athenaeus, *Deipnosophistae*, VII, 319 a (109, 3-4, Kaibel).

²³ Athenaeus, *Deipnosophistae*, VII, 319 a-b (109, 4-8, Kaibel).

²⁴ *Galen de alimentorum facultatibus libri*, 728, 16-17, [in:] *Claudii Galeni opera omnia*, ed. D.C.G. Kühn, vol. VI, Lipsiae 1823 (hereinafter: Galen, *De alimentorum facultatibus*).

²⁵ In the abovementioned testimony borrowed from Xenocrates.

²⁶ *Strabonis geographica*, XII, 3, 11, 13-17, rec. A. Meineke, vol. I-III, Lipsiae 1969 (hereinafter: Strabon, *Geographica*).

²⁷ On *tarichos* cf. M. Kokoszko, *Ryby*, p. 317-329; idem, *Kuchnia i dietetyka późnego antyku oraz Bizancjum. Kilka uwag na temat spożycia, sporządzania, przyrządzania*,

e white rock formation cutting into the sea in the vicinity of Chalcedon, they change the direction towards the European coast. When they reach the coast, they migrate towards the City of Byzantium in order to reach the Golden Horn inlet. As the inlet is shallow, they can be caught even with bare hands²⁸.

We know that Skipjack tuna/bonito was an excellent raw material for producing fish preserves called *tarichos*. Opinions expressed by Galen²⁹ and Oribasius³⁰ fully confirm this assumption. However, it is extremely difficult to compose a full list of preserves prepared from the fish called *pelamys*. We know that the smallest-sized specimens were used to produce *tarichos* known as *kordyleion*. Hicesius claimed that Skipjack tuna was made use for the sake of preparations a certain kind of a fish preserve called *kybia*³¹. This information was confirmed by Oribasius. The latter additionally introduces the term *tritomon kybion* which stands for the raw material in order to prepare the fish preserve called *kybion/kybia*. From the above-mentioned fragments of the Oribasius' works, we can conclude that *pelamydes* of larger size than *kybion* (i.e. closer to maturity) were profited from to produce *tarichos* referred to as *horaion*³². This is compliant with data provided by other authors. However, apart from Oribasius, no expert in this field mentions the preserve called *orkyalos pelamys*. Thus, the conclusion must be drawn that the author meant *tarichos* made from large-sized fish. The term *sarda pelamys*, whose description is included in the summary of the Oribasius' work, surely refers to a type of fish preserves. Nevertheless, the fish described in the sources as *pelamys*³³ did not necessarily have to be utilized as the raw material for this *tarichos*. Diphilus of Siphnus added that larger Skipjack tuna specimens were utilized for the production of another type of a preserve called *thynneion*³⁴.

As far as the dietetic advantages of Skipjack tuna/bonito are concerned, *Deipnosophistae* presents extant fragments of works by Diphilus of Siphnus³⁵

and Hicesius³⁶ related to this topic. A passage from the work written by the former author characterises *pelamydes* as nutritious but stodgy and diuretic food. When the fish is processed into a preserve, it has a beneficial impact on the digestive tract and dilutes juices in person's body. Hicesius, being another expert in this field, only mentioned that meals prepared from Skipjack tuna were difficult to excrete. Oribasius claimed that *pelamydes* did not have a beneficial impact on the digestive tract, their flavour properties were low (imbalanced humoral system), the consumed fish generated gas in intestines, the meat was loose, hard to excrete but still nutritious³⁷. As far as salted *pelamys* fish are concerned, Galen stated that salt fish produced of this meat belonged to the best fish *taiche* available in the Mediterranean Sea basin³⁸, and Oribasius³⁹ confirmed this opinion. The latter is also the most accurate source of information as far as the advantages of *tariche* made of Skipjack tuna/bonito are concerned.

On the other hand, the term *thynnos* was referred to large sea fish classified by dieticians as large sea creatures, i.e. *ketodeis*. Nowadays, it is more precisely referred to as tuna fish, however, this term includes the whole group of species belonging to *Thunnidae*. D'Arcy Thompson identifies *thynnos* as *Thunnus thynnus*, *Thynnus pelamys* (*Pelamys sarda*) or *Thynnus alalunga*⁴⁰. These findings have been confirmed by Andrew Dalby⁴¹, Tom Gallant⁴² and Eduarda de Saint-Denis⁴³. With respect to the Polish nomenclature, one may conclude that the ancient and Byzantine authors referred to common tuna, bluefin tuna, bonito/ Skipjack tuna, Albacore tuna and others.

Tuna fish lived in the whole Mediterranean Sea and adjacent basins. During the migrations, the fish freely moved among all areas, and particularly two stages of their journey were described. Firstly, the route from the Pillars of Hercules to southern Italy was observed. For example, there is information regarding this scope preserved in the works of Oppianus⁴⁴. Two fishing and processing centres

wartości dietetycznych i zastosowań medycznych konserw rybnych w antycznej i bizantyńskiej literaturze greckiej, „Acta Universitatis Lodzianensis. Folia Historica”, vol. 80, 2005, pp. 7-25. On other important fish processing products cf. idem, *Sosy w kuchni greckiej. Garum (γάρον) i pochodne*, „Vox Patrum”, vol. 26, 2006 No. 49, pp. 289-298.

²⁸ Strabon, *Geographica*, VII, 6, 2, 1-29.

²⁹ Galen, *De alimentorum facultatibus*, 746, 14-15.

³⁰ Oribasius, *Collectiones medicae*, IV, 1, 37, 4-38, 2.

³¹ Athenaeus, *Deipnosophistae*, III, 118 a (87, 1-2, Kaibel).

³² M. Kokoszko, *Ryby*, p. 127-128.

³³ It is possible that the term was used to designate mackerels – M. Kokoszko, *Znaczenie terminu sarda (sarda). Nowa interpretacja*, „Rozprawy Komisji Językowej”, vol. 35, 2008, pp. 27-34.

³⁴ Athenaeus, *Deipnosophistae*, III, 120 f (92, 8-10, Kaibel).

³⁵ Athenaeus, *Deipnosophistae*, VIII, 356 f (53, 33-36, Kaibel).

³⁶ Athenaeus, *Deipnosophistae*, III, 116 e (85, 3-7, Kaibel).

³⁷ Oribasius, *Collectiones medicae*, II, 58, 20, 1-4.

³⁸ Galen, *De alimentorum facultatibus*, 728, 14-17, Kühn VI.

³⁹ Oribasius, *Collectiones medicae*, IV, 1, 40, 1-41, 1.

⁴⁰ D'A.W. Thompson, *A glossary of Greek fishes*, London 1947, pp. 79-90, 197-199 etc.

⁴¹ A. Dalby, *Food*, pp. 333-337.

⁴² T. W. Gallant, *op.cit.*, pp. 26-27, 50, plate *albacore*, 53, plate *bluefin tunny*, 54, plate *bonito*, 59, plate *frigate mackerel*, 64, plate *pelamys*, 68, plate *skipjack*.

⁴³ E. De Saint-Denis, *La vocabulaire des animaux marins en Latin classique*, Paris 1947, pp. 83-84, 113-114.

⁴⁴ The migration route starts in the Atlantic Ocean and leads along the coast of the Pyrenean Peninsula towards Gaul and then in the direction of the Tyrrhenian Sea – *Oppiani halieutica*, III, 620-630, [in:] *Oppian, Colluthus, Tryphidorus*, with an English trans. A. W. Mair, London-New York 1928.

of *thynnos* were located on this route, i.e. Iberian⁴⁵ and Italian-Sicilian⁴⁶ centres.

The former included mostly the south coast of the Iberian Peninsula. There is a lot of data available in relation to this topic, and just a few examples should suffice. Polybius knew about the considerable quantities of tuna fish living by the Spanish coast⁴⁷. Strabo described large and fatty fish of this species present in the waters by the beaches of Turdetania⁴⁸. The craftsmen engaged in processing the sea resources were concentrated in Gades, which was described by Teodoridas⁴⁹.

As far as the Italian-Sicilian area is concerned, we also have an abundance of unambiguous data regarding this subject. Aelianus pointed out to the Sicily and the coast of Liguria as the areas where particularly intensive fishing activities took place⁵⁰. Italian *thynnoi* were also described by Arcestratus. They must have been both acclaimed and delicious, as he regarded them as worthy of his palate⁵¹. Strabo not only described schools of this fish present in the vicinity of the Apennine Peninsula⁵², but also the observation towers used to follow the migration routes located in Etruria, e.g. in the vicinity of Populonia⁵³. These structures were called *skopia*⁵⁴ or *thynnoskopeion*⁵⁵. Thus, it is

no wonder that fresh and salted tuna fish was mentioned in *De re coquinaria*⁵⁶.

Taking into account the migration of fish between the Aegean Sea and the Sea of Azov, another fishing and processing centre called Pont was established there. Numerous locations can be mentioned here. Arcestratos alone left information regarding Byzantium, Carystus and Samos⁵⁷. Aelianus mentioned Amastris, Heraclea and Tios⁵⁸. One may also add that such types of fish preserves as *tarichos*, *Bydzantion tarichos* and the acclaimed *Pontikon tarichos*⁵⁹ were produced in these areas. However, there are not many locations famous for catching this species of fish in Greece itself. Antiphanes mentioned only one of them. He described *thynnoi* from Megara⁶⁰.

The sources present several methods of preparing *thynnoi* as food. Caught fish were brought back to the land, flayed and cut up. The size resulted in the fact that fish meat was usually bought and prepared in pieces. This is shown in the works of Antiphanes⁶¹, Arcestratus⁶², Ephippus⁶³, Philoxenus⁶⁴, Matron and numerous other authors. The analysed sources show that a constant procedure for cutting up tuna fish was established. This results from the fact that the sources present consistent names defining individual parts of fish so they can be regarded as professional terminology. The data provided by, e.g. Matron, shows that the head *kefale* was treated as a separate batch of meat. Alexis also mentioned the head of this species, but he treated it as a second-rate raw material⁶⁵. Oribasius commented on the advantages of the tuna fish neck, i.e. *auchen*. The meat from this part of the fish carcass did not contain much fat and was difficult to digest. After the meat was salted, *omotarichos*⁶⁶, i.e. fish preserve, was produced. The technology of processing meat in this manner required salting the fish

⁴⁵ Select literature on the Iberian centre – A. Balil Illana, *Un estudio sobre el „garum”*, „Archivo Español de Arqueología”, vol. 26, 1953, pp. 183-185; R. I. Curtis, *Product identification and advertising on Roman commercial amphorae*, „Ancient Society”, vol. 15-17, 1984-1986, pp. 209-228, especially 212; idem, *Spanish trade in salted fish products in the 1st and 2nd centuries A.D.*, „International Journal of Nautical Archaeology and Underwater Exploration”, vol. 17, 1988, pp. 205-210; idem, *Garum and salsamenta. Production and commerce in materia medica*, Leiden-New York-København-Köln 1991 (hereinafter: *Garum*), pp. 46-64; C. L. Cutting, *Fish saving. A history of fish processing from ancient to modern times*, London 1955, pp. 21-22; D. P. S. Peacock, D. F. Williams, *Amphorae and the Roman economy. An introductory guide*, London-New York 1986, pp. 36-37 etc.

⁴⁶ Select bibliography on the Italian-Sicilian centre – J. André, *op.cit.*, pp. 97-107, 111-116; R. I. Curtis, *The garum shop of Pompeii (I. 12. 8)*, „Cronache Pompeiane”, vol. 5, 1979, pp. 5-23; idem, *The salted fish industry of Pompeii*, „Archaeology”, vol. 37, 1984, pp. 58-59, 74-75; idem, *Garum...*, pp. 85-111; P. Horden, N. Purcell, *op.cit.*, pp. 190-195 etc.

⁴⁷ Athenaeus, *Deipnosophistae*, VII, 302c-d (64, 13-20, Kaibel).

⁴⁸ Strabon, *Geographica*, III, 2, 7, 19-23.

⁴⁹ Athenaeus, *Deipnosophistae*, VII, 302c (64, 10-12, Kaibel).

⁵⁰ He did not omit the region of Massalia, which they passed on their way westwards – *Claudii Aeliani de natura animalium libri XVII, XIII, 16, 1-11*, ed. R. Hercher, Lipsiae 1971 (hereinafter: Aelianus, *De natura*).

⁵¹ Athenaeus, *Deipnosophistae*, VII, 294a (42, 8-12, Kaibel).

⁵² Strabon, *Geographica*, I, 2, 15, 23-32.

⁵³ Strabon, *Geographica*, V, 2, 6, 7-27.

⁵⁴ According to Aelianus (*De natura*, XV, 5, 8).

⁵⁵ As it is testified by the author of *Liber Suda – Suidae lexicon, anthropos, alfa, 2534, 1-3*. rec. A. Adler, vol. I-IV, Lipsiae 1928-1935.

⁵⁶ Cf. hereinunder.

⁵⁷ Athenaeus, *Deipnosophistae*, VII, 301f-302b (63, 10-24, Kaibel).

⁵⁸ Aelianus, *De natura*, XV, 5, 1-4.

⁵⁹ Select literature on the Pontic centre – D. Braund, *Fish from the Black Sea. Classical Byzantium and the Greekness of trade*, [in:] *Food in antiquity*, eds. J. Wilkins, D. Harvey, M. Dobson, Exeter 1995 (hereinafter: *FIA*), pp. 162-170, R. I. Curtis, *Garum*, pp. 118-130; C.L. Cutting, *op.cit.*, pp. 20-22; A. Dalby, *Food*, pp. 65-66, 167, etc.; N. Purcell, *Eating fish. The paradoxes of seafood*, [in:] *FIA*, pp. 132-149, especially 144-147.

⁶⁰ Athenaeus, *Deipnosophistae*, VII, 295c-d (45, 11-14, Kaibel).

⁶¹ Athenaeus, *Deipnosophistae*, VII, 295f (46, 18-27, Kaibel).

⁶² Athenaeus, *Deipnosophistae*, III, 116f-117a (85, 11-23, Kaibel).

⁶³ Athenaeus, *Deipnosophistae*, VII, 322d-e (120, 9-19, Kaibel).

⁶⁴ Athenaeus, *Deipnosophistae*, VII, 322d-e (120, 9-19, Kaibel).

⁶⁵ Athenaeus, *Deipnosophistae*, VII, 302f -303a (65, 31-37, Kaibel).

⁶⁶ Oribasius, *Collectiones medicae*, II, 58, 144, 3-145, 1.

for a short period of time. In the fragment quoted above, Antiphanes commented on the fish carcass sides, i.e. *lagones*. Aristophon mentioned the blade bones, i.e. *kleis*⁶⁷. Oribasius also mentioned the backs, i.e. *nota*, of the fish from the *ketodeis*⁶⁸ group. However, the Greek sources most frequently mention the pieces cut out from the tuna fish underbelly, i.e. *hypogastrica*⁶⁹. There are numerous references regarding this part. Aristophanes⁷⁰, Eriphus, Stratitis⁷¹ and several other Greek authors were familiar with this term. Diphilus of Siphnus also wrote about ribs, i.e. *kostai* of the *orkynos*⁷² fish. As far as *thynnos* fish is concerned, the tail or actually the rear part of the *ketodeis* fish was separated. The name for this part found in the sources is *ouraion*. Athenaeus mentions the *thynnis* fish tail while commenting on a fragment of one of the Antiphanes⁷³, works and the rear parts of *thynne* were also praised by Arcestratus.

Dieticians also stressed the fact that different parts of this meat had various properties. *Hypogastrica* was considered as best for roasting. This resulted from its high fat content. The fat melting under high temperatures prevented the meat from drying. *Ouraia* were also suitable for roasting. To compensate for the fact that they were relatively lean, they had to be copiously sprinkled with good olive oil. It was mentioned by Arcestratos, when he wrote about preparation of *thynne* fish. On the other hand, the back parts were harder and fat-free. Thus, the best preparation method was boiling, as they became more juicy⁷⁴. Dieticians also recommended that the tuna fish heads be boiled, as during this process all detrimental juices, particularly natural and excessively salty humors⁷⁵ were transferred to the stock, making the meat more healthy.

Tuna fish was commonly considered as a raw material for fish preserves. *Tariche* was produced from specimens of different size, using salt as the preservative. Depending on the manufacturing location, size of the fish, duration of the preservation process and type of the meat used, *tarichos* had different names. The references to this issue are numerous, yet often ambiguous. Nicostartus⁷⁶ alluded to a piece of fish from the city of Byzantium⁷⁷. This fragment

confirms the existence of the whole group of fish preserves called *Byzantion tarichos*. The above-mentioned passage also referred to *hypogastrica* from Cadiz, which most probably were preserved pieces of the *thynnos* fish. The term *horaion* also refers to the discussed fish. Oribasius wrote that it was a product obtained from the *pelamys* fish. All this evidence shows that young tuna fish was used as a raw material for producing *Pontikon tarichos*⁷⁸.

As far as dietetic advantages of tuna fish are concerned, they are analogous to the features of all large-sized sea creatures, i.e. *ketodeis*⁷⁹. *Ex definitione*, they belonged to the group of fish whose meat was hard. Aristotle mentioned that this meat is particularly fatty⁸⁰. Diphilus of Siphnus classified it as stodgy but nutritious⁸¹. Galen included it in the chapter devoted to fish having hard meat. He regarded it as unpalatable and viscous. Thus, it was recommended to serve it with spicy additives which diluted the harmful juices resulting from the digestive processes⁸². Younger specimens were easier to digest. The mature ones changed their characteristic after undergoing the preservation process. Then, they became much easier to digest. Eating tuna fish resulted in thick juices generating in the stomach. Nevertheless, this feature was typical for all *ketodeis*. Only pelamydes, i.e. above-mentioned Skipjack tuna/bonito, though generally similar as far as their dietetic value were concerned, had less intensive influence on the human body⁸³. As it has been written above, Oribasius followed Galen's tradition as regards his assessment of *ketodeis*. In his group description of this fish, he wrote (following Xenocrates) that *thynnoi* are not good for the stomach, have bad juices, cause flatulence, the meat has loose texture and is difficult to excrete, but still nutritious. Oribasius particularly valued the underbelly parts. When fresh, they had good juices, were easy to digest and did not require crumbling. However, since they were fatty, they remained on the surface of digested products for longer periods of time. The solidity of the alluded to general assumptions was confirmed by Aëtius of Amida and Paul of Aegina. Aëtius of Amida classified tuna fish as fish having hard meat⁸⁴. Thus, he referred to it in the chapter on foodstuffs contributing to the generation of thick juices⁸⁵, in particular black bile⁸⁶. Paul of Aegina

⁶⁷ Athenaeus, *Deipnosophistae*, VII, 303a-b (65, 17-19, Kaibel).

⁶⁸ Oribasius, *Collectiones medicae*, II, 58, 7, 1-8, 1.

⁶⁹ Athenaeus, *Deipnosophistae*, VII, 302f (65, 22-23, Kaibel).

⁷⁰ Athenaeus, *Deipnosophistae*, VII, 302d (65, 6-8, Kaibel).

⁷¹ Athenaeus, *Deipnosophistae*, VII, 302d (65, 9-13, Kaibel).

⁷² Athenaeus, *Deipnosophistae*, VIII, 357a (53, 39-42, Kaibel).

⁷³ Athenaeus, *Deipnosophistae*, VII, 303f-304 a (67, 26-36, Kaibel).

⁷⁴ Oribasius, *Collectiones medicae*, IV, 2, 1, 1-2, 1.

⁷⁵ Oribasius, *Collectiones medicae*, II, 58, 7, 4-5.

⁷⁶ Or Philetairus. Athenaeus of Naucratis is unsure about the authorship.

⁷⁷ Athenaeus, *Deipnosophistae*, III, 118 e (88, 11-13, Kaibel).

⁷⁸ Galen, *De alimentorum facultatibus*, 728, 9-729, 5.

⁷⁹ M. Kokoszko, *Ryby*, pp. 155-156.

⁸⁰ Aristote, *Histoire des animaux*, 571 a, 7-8, ed. P. Louis, vol. I-III, Paris 1964-1969.

⁸¹ Athenaeus, *Deipnosophistae*, VIII, 356b (53, 1-2, Kaibel).

⁸² Galen, *De alimentorum facultatibus*, 728, 6.

⁸³ *Galen de probis pravisque alimentorum succis liber*, 769, 7-10, [in:] *Claudii Galeni opera omnia*, ed. D. C. G. Kühn, vol. VI, Lipsiae 1823.

⁸⁴ *Aetii Amideni libri medicinales I-VIII*, II, 143, 1-5, ed. A. Olivieri, Lipsiae-Berolini, 1935-1950 (hereinafter: *Aetius Amidenus, Iatricorum libri*).

⁸⁵ *Aetius Amidenus, Iatricorum libri*, II, 241, 5-9.

⁸⁶ *Aetius Amidenus, Iatricorum libri*, II, 246, 1-9.

shared his predecessors' opinions and also included tuna fish in the chapter on *ketodeis*.

The above-mentioned compendium of knowledge on tuna fish and Skipjack tuna/bonito proves considerable competence of those living in Antiquity as far as the general knowledge regarding sea fauna is concerned. Moreover,

it seems to confirm the significant role played by fish in the diet of the people of Antiquity and Byzantium who lived in the Mediterranean Sea basin. Unfortunately, this source of information still remains mostly unknown and unexplored by modern researchers.

Streszczenie

Morskie delikatesy. Wybór informacji na temat genus *Thunnus* zaczerpniętych ze źródeł medycznych i innych.

Rolę ryb w diecie antyku i Bizancjum uważa się zwykle za istotną. Dysponujemy szeroką gamą źródeł literackich, które dostarczają nam informacji na temat ryb. Oprócz literatury pięknej są to *Deipnosophisti* Atenajosa z Naukratis oraz bardzo znaczący zasób literatury medycznej (dzieła Galena, Orybazjusza, Aecjusza z Amidy, Pawła z Eginu i innych).

Wiele źródeł antycznych i bizantyńskich mówi o rybach identyfikowanych dziś jako należące do genus *Thunnus*, a określanych jako *pelamys* (bonito) oraz *thynnos* (tuńczyki). Źródła wskazują, że autorzy greccy borykali się ze znacznymi trudnościami, gdy chcieli pokazać związki i różnice pomiędzy *thynnoi* i *pelamides*. Z analizy źródeł wynika, iż skupili się na występujących analogiach. Stąd też łączenie obu pojęć i traktowanie ich jako faz rozwojowych jednego i tego samego gatunku.

Ogół informacji źródłowych skłania do wniosku, iż *pelamides* żyły w całym Morzu Śródziemnym oraz w akwenach przyległych. Wiemy, że bonito były znakomitym surowcem do sporządzania konserw rybnych, czyli *tarichos*. Ilustracją tej tezy są choćby opinie Galena i Orybazjusza. Jeżeli chodzi o walory dietetyczne ryb bonito, to w *Deipnosophistach* zachowane zostały fragmenty pracy Difilosa z Sifnos i Hikesiosa na ten temat. Passus z dzieła tego pierwszego charakteryzuje *pelamides* jako pożywne, ale ciężkie, trudne do strawienia, a nadto moczopędne. Po przetworzeniu na konserwę dobrze wpływają na przewód pokarmowy i przyczyniają się do rozcieńczenia soków w organizmie. Drugi z wymienionych powyżej znawców tematu, Hikesios, stwierdził jedynie, że bonito nie były łatwe do wydalania. Jeśli idzie o cechy solonych ryb *pelamys*, to Galen utrzymywał, że konserwy produkowane z ich mięsa należały do najlepszych przetworów rybnych dostępnych w basenie Morza Śródziemnego, a Orybazjusz potwierdził tę opinię.

Termin *thynnos* z kolei oznaczał w zasadzie dużą rybę morską zaliczaną przez dietetyków do wielkich stworzeń morskich, czyli *ketodeis*. Owe *thynnoi*, czyli tuńczyki, żyły w całym Morzu Śródziemnym oraz w akwenach sąsiadujących. Migrując przemieszczały się one swobodnie między poszczególnymi obszarami, a opisywano przede wszystkim dwa etapy tej podróży. Zwracano uwagę na trasę od Słupów

Heraklesa do południowej Italii. Przykładem relacji na ten temat są informacje zachowane przez Oppiana. Na szlaku tym znajdowały się dwa centra połowu i przetwórstwa ryb *thynnos*, a mianowicie iberyjskie i italsko-sycylijskie. Z uwagi na migracje ryb pomiędzy Morzami Egejskim a Azowskim ukształtował się tam kolejny ośrodek połowu i przerobu tych ryb, tak zwany Pontem.

Źródła ukazują nam wiele metod potencjalnych sposobów przygotowywania *thynnoi* jako pożywienia. Pojawiają się stałe nazwy określające poszczególne części ryby tak, że można je uznać za terminy fachowe (*kefale*, *auchen*, *kleides*, *hypogastria*, *kostai*, *ourai*). Dietetycy przypominali, że różne partie mięsa miały odmienne właściwości. Tuńczyki były uznanym powszechnie surowcem do sporządzania konserw rybnych. *Tariche* wytwarzano z egzemplarzy o różnej wielkości, stosując sól jako środek konserwujący. W zależności od miejsca produkcji, rozmiarów ryby, długości procesu konserwowania oraz rodzaju użytego na konserwę mięsa, *tarichos* nosiło odmienną nazwę (na przykład, *Byzantion tarichos*, *Pontikon tarichos*, *horaion*, *kybia*, *omotarichos* etc.).

Gdy chodzi o walory dietetyczne ryb tuńczyków, to owe cechy są analogiczne do tych, jakie posiadają wszystkie stworzenia morskie znacznych rozmiarów, to znaczy *ketodeis*. *Ex definitione* należały zatem do ryb o twardym mięsie. Uważano je często za niesmaczne i śluzowate. Dlatego dobrze było podawać je z ostrymi dodatkami, które rozcieńczały niebezpieczne dla zdrowia soki powstałe w procesie trawienia. Młodsze egzemplarze były lżej strawne. Te wyrośnięte zmieniały swoje cechy dopiero po zakonserwowaniu. Wtedy i one stawały się łatwiejsze do przyswojenia. Jedzenie tuńczyków skutkowało tworzeniem się w organizmie gęstych soków. Tę zresztą właściwość miały wszystkie *ketodeis*.

Przedstawione powyżej kompendium wiedzy na temat tuńczyków i bonito wskazuje na znaczną kompetencję starożytnych, jeśli idzie o ogólną wiedzę na temat fauny morskiej. Nadto, zdają się one potwierdzać istotną rolę, którą ryby odgrywały w wyżywieniu ludzi antyku i Bizancjum zamieszkujących basen Morza Śródziemnego. Ten zasób informacji, niestety, pozostaje jednak ciągle w dużej mierze nieznanym i niewykorzystanym przez nowożytnych badaczy.