

## XV.—Greek and Latin Mouse-fishes and Pig-fishes

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The basic aim of this paper is to determine the identity of various fishes denominated "mouse-fish" and "pig-fish" in the classical period. Findings are tabulated at the end of the paper, together with the previous identifications of *LSJ*, Thompson, and Gossen.

The usual Greek term for the mouse was *μῦς*. A word identical in form served as the name of several different fishes, and scholars have generally assumed that this is a simple case of extension of the name of the mouse to a fish, with limited spread to similar types. But this is not necessarily so, for the identity in form may be merely coincidental, or the same word may have been applied independently to the mouse and to a fish. Certainly, as will presently become clear, it is difficult to single out any characteristic that logically could account for the extension of the name "mouse" to those fishes which were called *μῦς*.

Oppian (*Hal.* 1.174–178) describes the *μύες* as a savage tribe with hard skin and jagged teeth, not very large, but bolder than all other swimming creatures, attacking fishes and even men. Aelian (*Nat. an.* 9.41) tells substantially the same story, except that he says specifically that they are small. Marcellus of Side (30) speaks of them as "well-armored."

The older naturalists, like Rondelet, took the *μῦς* to be one of the armored globe-fishes (Fam. *Sclerodermi*), such as *Tetrodon* or *Diodon*. Some have suggested specifically *Tetrodon lineatus* L., called *chept* in Old Egyptian, now *fahaqa* by the Arabs and *φλασκοῦψαρον* or "bottle-fish" by the Greeks in Egypt. This is a pugnacious globe-fish whose skin is set with small projecting spines. It is a denizen of the Nile, which it ascends in time of flood, is often left high and dry, and can live for some little time out of water. But the few details given suggest rather the file-fish or trigger-fish, *Balistes caprisus* L., like *Tetrodon* and *Diodon* a member of the family of *Sclerodermi*, an identification proposed by Apostolidès<sup>1</sup> and accepted by Mair.<sup>2</sup> The file-fish is scorned by some, primarily

<sup>1</sup> *La pêche en Grèce*<sup>2</sup> (Athens, 1907) 8.

<sup>2</sup> Note on Oppian. *Hal.* 1.174.

because of its appearance, but regarded by others as an excellent food fish with delicate flesh. Since the *μῦς* is mentioned by Epi-  
 charmus (*apud* Athen. 7.282A and 308E) and Antiphanes (*ib.* 7.295c) in contexts that imply alimentary use, the file-fish is a much more plausible identification than a globe-fish like *Tetrodon lineatus*, which is extremely poisonous. Moreover, the failure of Oppian and Aelian to mention the Nile in connection with the *μῦς* also points to the file-fish rather than *Tetrodon lineatus*, for usually when the Nile is the habitat of a fish, they say so specifically.

Hans Gossen,<sup>3</sup> making no allusion to the identification of Apostolidès and Mair, refers the *μῦς* to *Lophius budegassa* Spin. This is one of the two species of fishing-frog found in the Mediterranean. The other is *Lophius piscatorius* L., commonly called *βάτραχος* by the Greeks. Gossen bases his identification partly on Oppian's description and partly on the fact that Aristotle (*apud* Athen. 7.330A) classifies both the *βάτραχος* and the *μῦς* as *σελάχη* (i.e., cartilaginous). In this passage of Aristotle the fishes so classified are the *βοῦς*, the *τρυγών*, the *νάρκη*, the *βαρίς*, the *βάτραχος*, the *βούγλωττος*, the *ψῆττα*, and the *μῦς*. The first four are all rays and correctly regarded as selachians. The *βάτραχος* or fishing-frog is also elsewhere classified by Aristotle as a selachian (*ib.* 7.286B and *H.A.* 540B.17), and it can be presumed that he so regarded it, even though it is not. The *βούγλωσσος* (a type of sole) and the *ψῆττα* (the plaice) are not cartilaginous and are not elsewhere so catalogued by Aristotle. It can therefore safely be assumed that something has dropped out after *βάτραχος* in this mutilated passage and that originally the last three fishes were not characterized as selachians. Support of this view is found in the fact that Aristotle's inclusive list of selachian fishes (*H.A.* 540B.17) does not contain one of these three names. There is therefore no basis for regarding the *μῦς* as in any respect similar to the *βάτραχος*. Furthermore, the diminutive *Lophius budegassa* certainly is not a bold and belligerent fish that attacks other fish and even men, as Oppian and Aelian relate. Gossen's identification can accordingly be rejected as without merit.

Theophrastus (frg. 171, *De pisc. in sicco viventibus*) says that the *μῦς*, like the seal, is amphibious in both diet and habitat. Pliny

<sup>3</sup> "Die zoologischen Glossen im Lexikon des Hesych," *Quellen und Studien zur Geschichte der Naturwissenschaften und der Medizin*, 7, Heft 1 (1937) (hereafter cited as "Hesych") no. 756; "Zoologisches bei Athenaios," *ibid.* 7 (1939) (hereafter cited as "Athen.") 257-258.

(*N.H.* 9.71) says that the so-called *marinus mus* "goes out upon the land." Elsewhere (*ib.* 9.166) he states that the *mus marinus* digs a hole in the ground, deposits eggs in it, covers them with earth, returns after thirty days, digs them up, and guides the young to water. Dalechamp suggested that the reference was to a turtle, and Cuvier inclined to this interpretation, but did not entirely abandon *Tetrodon* as a possibility. Schneider, accepting the turtle as the correct interpretation, proposed to read ἡ ἐμῦς for ἡ μῦς or ὁ μῦς in Theophrastus, and Wimmer accepted ἐμῦς for his text. Sir D'Arcy W. Thompson<sup>4</sup> believes that the μῦς of Oppian, Aelian, Marcellus, and Theophrastus is probably the turtle, commenting that while it has no teeth, it gives a savage bite with its hard, sharp-edged jaws, and is emphatically "well-armored." "If we may extend to it the name ἐμῦς," he says, "commonly used of the little pond-tortoise of S. Europe, and see in μῦς a variant of the same name, the difficulty is solved."

The problem is not quite so simple. The second passage of Pliny, on the *mus marinus*, is based on Aristotle's account of the freshwater turtle, *Emys lutaria* L. (*H.A.* 558A.7), and manifestly entails an error arising from reading μῦς for ἐμῦς. The first passage of Pliny, on the *marinus mus*, may be based on the account of Theophrastus. The error in this case, if one exists, is probably attributable to Theophrastus rather than to Pliny, or perhaps rather to transcribers of Theophrastus. At any rate, μῦς probably appeared in the text available to Pliny. The statement of Theophrastus does, indeed, suggest the turtle; but it also suggests observation of specimens of *Tetrodon lineatus*, a close relative of the file-fish, left high and dry on the shores of the Nile; and this latter possibility is sufficiently attractive to cast doubt on the necessity of emending either the text of Theophrastus or the passage of Pliny which appears to be based on it. In short, if allowance is made for the manifest error of Pliny in citing Aristotle's account of the freshwater turtle, all other references in Greek and Latin sources, with due allowance made for the fact that Aristotle probably did not classify the μῦς as cartilaginous, can be referred either to the file-fish or a related globe-fish. Furthermore, although the marine μῦς is nowhere specifically called a fish, Oppian, Aelian, Antiphanes, and Epicharmus all refer to it in the midst of references to fishes

<sup>4</sup> *A glossary of Greek fishes* (London, 1947) 167-168.

and do not imply that it is anything else. For these reasons, the turtle is not a convincing identification.

Aristotle in another passage (*H.A.* 519A.23) refers to a *μυστικός* or cetaceous *μῦς* that has no teeth in its mouth, but only bristles like those of swine. This led Cuvier<sup>5</sup> to identify this huge fish as possibly the rorqual, on the ground that the fringe of whalebone of *Balaenoptera* sp. might be likened to bristles. The common rorqual, *Balaenoptera* (properly *Balaena*) *musculus* L., is indeed cetaceous, attaining a length of a hundred feet, and it enters the Mediterranean today. Sir D'Arcy W. Thompson,<sup>6</sup> who identifies this huge creature of Aristotle as *Balaena* sp., suspects that in the passage of Aristotle one should read *μυστακόκητος* "moustache-whale" for *μυστικός*, on the pattern of German *Bartenwhal* for *Balaena* sp. Two other species of the *Balaena* type may have been known to the ancients, since they enter the Mediterranean today. These are the rightwhale, *Eubalaena glacialis*, and the bowhead, *Balaena mysticetus*. Whatever this huge marine creature of Aristotle is, it is certainly not the *μῦς* of Oppian and Aelian, which is a relatively small fish, and probably not the *μῦς* which he elsewhere mentions in close association with the *βάτραχος* and the *ψήττα*.

The common mussel, *Mytilus edulis* L., was known in ancient Greek as *μῦς*, *μύαξ*, *μνάκιον*, *μνίσκη*, *μνίσκος*, and *μίτυλος*. These terms are merely variants, or at least come from a common source. One of them, *μῦς*, is identical in form with the fish-name previously discussed; but there is usually no doubt when the mussel is meant and not a fish.<sup>7</sup> *Μῦς* as a term for the mussel may or may not be the same word as *μῦς* the fish-name, for this may be only a coincidence of form. And even though ancient Greek authors sometimes refer to the common mussel as *μῦς ὁ θαλάσσιος* or "sea-mouse," the identity in form of *μῦς* "mouse" and *μῦς* "mussel" may similarly be sheer coincidence. Certainly neither the fish-name nor the mouse-name exhibits the variability of the mussel-name. Nevertheless, Reinhold Strömberg<sup>8</sup> thinks that *μῦς* "mouse" was extended to the mussel, the file-fish, and the whale, in the first instance, because of

<sup>5</sup> In ed. of Pliny (Collect. Lemaire) iv, 204, note 7.

<sup>6</sup> *Op. cit.* (above, note 4) 168.

<sup>7</sup> E.g., Aristot. *H.A.* 528A.15–29; 547B.11; Oppian. *Hal.* 1.316; Athen. 2.37A; Epicharm. *ibid.* 3.85D; Philyll. *ibid.* 3.86E; Heracl. *ibid.* 3.120D; Plin. *N.H.* 9.115; 32.149.

<sup>8</sup> *Studien zur Etymologie und Bildung der griechischen Fischnamen* (Göteborgs Högskolas Årsskrift, 49 [1943] no. 2) 109–110.

the mussel's small size, commonness, insignificance, and worthlessness, in the second, because of the file-fish's plump body and gray color, and in the third, in an ironical sense, because of the whale's huge size and dangerousness, as well as its gray color. The motivation in all three cases is so weak as to be suspect.

The Greek terms for the common mussel were transcribed in Latin in such forms as *mys*, *mytilus*, *mitulus*, *myiscus*, and *myax*; but the usual Latin term for it is *musculus*. This perhaps should be regarded as cognate with *μῦς* rather than a diminutive of *mus* "mouse." But *musculus* was also used as a fish-name, and in that application it appears to be a bookish word consciously formed as a diminutive of *mus* and not current in popular speech.

From Pliny's accounts of the fish which he calls *musculus*, it seems that he has confused two different ones with more than his usual success. When he lists the *musculus* in a group of large sea creatures (*N.H.* 32.144), he apparently has in mind the *μυστίκτης* or *μυστακόκτης* of Aristotle, and his use of *musculus* implies that *μυστίκτης* was the reading in the text available to him. In another passage (*N.H.* 11.165) he says that the *musculus marinus*, which precedes the *ballaena* (i.e., the whale), has no teeth, but instead of these inside its mouth it has stiff bristles. Again he seems to be referring to Aristotle's cetaceous *μῦς*, but he has interpolated a phrase which pertains to a totally different fish — the reference to the *musculus* preceding the *ballaena*. The character of the second fish appears a little more clearly in still another passage (*N.H.* 9.186), in which he speaks of the close relation between the *ballaena* and the *musculus*, the latter serving as a guide for the former. Similarly Sidonius (*Epist.* 5.13.1) mentions the *musculus* as acting as a guide for the *ballaena*. The fish which was reputed to serve as a guide for the whale was usually called *ἡγητῆρ* or *ἡγεμών* (i.e., "guide") by the Greeks.<sup>9</sup> It was also commonly called *πομπίλος* or "pilot" from its alleged practice of guiding ships. This fish is generally identified as the pilot-fish, *Naucrates ductor* Cuv., and it is interesting to note, among survivals of *pompilus* in the Romance nomenclature, the use of *fanfre* at Nice as a name for the file-fish,<sup>10</sup> which suggests that the two fishes may similarly have been sometimes confused in ancient times.

<sup>9</sup> Cf. Oppian. *Hal.* 5.62–110; Claud. *In Eutrop.* 2.425–431; Aelian. *Nat. an.* 2.13.

<sup>10</sup> Cf. Julius V. Carus, *Prodromus faunae mediterraneae* (Stuttgart, 1885–93) II, 539.

Diphilus of Siphnos (*apud* Athen. 8.355F) says:<sup>10a</sup> "There is, to be sure, a river *φάγρος*, but it is inferior to the marine type. The *καπρίσκος* is also called *μῦς*; it is odorous and hard-fleshed, and is more difficult to digest than the *κίθαρος*; but the skin is tasty." This is the usual interpretation. A second possibility is: "There is . . . a river *φάγρος* . . . . It is called *καπρίσκος* and also *μῦς*." The marine *φάγρος* is the braize, *Pagrus vulgaris* C.V.<sup>11</sup> The river type of Diphilus is probably the one associated with the Nile, which has not been precisely identified. Sir D'Arcy W. Thompson<sup>12</sup> says that it may be the great Nile perch, *Lates niloticus*, or perhaps rather the fierce and voracious river-dog, *Hydrocyon forskalii*. The fish called *μῦς* by Oppian and Aelian, apparently the file-fish, was bold and belligerent, attacking other fishes and even men. Theophrastus' comment on the *μῦς* suggests the related *Tetrodon lineatus*, a pugnacious denizen of the Nile. It appears, therefore, that *μῦς* was basically the name of the file-fish, that the name was extended to its Nile relative, *Tetrodon lineatus*, somewhat similar in appearance and also belligerent, and from that to the river-dog, which shared the characteristic of pugnacity. It was commonly called *καπρίσκος*, but also a river type of *φάγρος*. Gossen,<sup>13</sup> however, refers this fish-name to the Nile bichir, *Polypterus bichir* Geoffr. The *κίθαρος* has been equally troublesome. Rondelet identified it as *Pleuronectes macrolepidotus* Bloch; Strack, as *Pleuronectes rhombus* L. (*Rhombus laevis* Gottsche); and Cresswell, as the piper, *Trigla lyra* L. Gossen<sup>14</sup> refers it to the lantern-flounder, *Arnoglossus laterna* Gthr. Thompson<sup>15</sup> says that it is unidentified. Like the freshwater *φάγρος*, it occurred in the Nile.

Since *καπρίσκος* as a diminutive of *κάπρος* "boar" means "small boar," in the passage of Diphilus cited above *μῦς* is emended to *σῦς* "pig" by Dalechamp and Coray and to *ῦς* "pig" by Kaibel, and Thompson accepts the latter emendation. For the reasons given

<sup>10a</sup> The passage reads as follows: *φάγρος γίνεταί μὲν καὶ ποτάμιος, καλλίων δ' ἐστὶν ὁ θαλάττιος. καπρίσκος καλεῖται μὲν καὶ μῦς, βρωμώδης δ' ἐστὶ καὶ σκληρός, κίθαρον δ' ἐστὶ δυσπεπτότερος: δέρμα δ' ἔχει εὔστομον.* It may be noted that the text as it stands is susceptible of either interpretation, without even a change of punctuation.

<sup>11</sup> Cf. Thompson, *op. cit.* (above, note 4) 273; Mair's note on Oppian. *Cyn.* 2.391.

<sup>12</sup> *Op. cit.* (above, note 4) 274-275.

<sup>13</sup> "Hesych" (above, note 3) no. 2224; "Die Tiernamen in Älians 17 Büchern *περὶ ζῴων*," *Quellen und Studien zur Geschichte der Naturwissenschaften und der Medizin*, 4, Heft 3 (1935) (hereafter cited as "Aelian") par. 97.

<sup>14</sup> "Hesych" (above, note 3) nos. 969 and 1345.

<sup>15</sup> *Op. cit.* (above, note 4) 114.

above, this emendation appears to be unnecessary. Alexis (*apud* Athen. 3.107F) characterizes the *καπρίσκος* as *σκατοφάγος* "dung-eating." He may be referring to the boar rather than to the fish, or this may be an attempt to account for the foul odor of the fish to which the name *καπρίσκος* was applied.

J. P. J. M. Brands<sup>16</sup> accepts the synonymy of *καπρίσκος* and *μῦς*, referring both names to the file-fish. Gossen<sup>17</sup> refers only the *καπρίσκος* to the file-fish. Thompson<sup>18</sup> says that the *μῦς* of Diphilus is probably the turtle, while the *καπρίσκος* is an unidentified fish. It may be noted that the identification of the *καπρίσκος* as the file-fish is possible only if the first interpretation of Diphilus' passage is accepted, whether the byname is read *μῦς*, *σῦς*, or *ὑς*, for the file-fish is marine. It seems best, on the whole, to regard *καπρίσκος* as a name for the river-dog, applied because of some resemblance to a boar, and *φάγρος* and *μῦς* as bynames extended to it respectively from the braize and the globe-fish. These names have a common denominator pertinent to the river-dog, which was called *καπρίσκος* because its behavior suggested the savage pugnacity of the wild boar, *φάγρος* because it was voracious, like the braize, and *μῦς* because it was belligerent, like the globe-fish and the file-fish.

Ovid (*Hal.* 131) describes the *sus* or "pig-fish" as having a hard skin, and Aristotle (*apud* Athen. 7.305D) speaks of the *κάπρος* or "boar-fish" as having a very hard, rough skin. The *sus* of Ovid and the *κάπρος* of Aristotle may therefore be the same fish, in that case probably the file-fish, whose hard skin Oppian, Aelian, and Marcellus of Side note as a salient characteristic. Hesychius, however, defines *κάπρος* as a term for the *φάγρος*, and the latter, as has been noted, is usually the braize. But by the second interpretation of the passage of Diphilus cited above, *φάγρος* was extended to a freshwater fish of the Nile known as *καπρίσκος*, and *κάπρος* may therefore have been used as a term for the same fish, that is, the river-dog. On this basis, Gossen<sup>19</sup> is not justified in rejecting this equation of Hesychius as an error.

Rondelet and Cuvier were inclined to identify the marine *κάπρος* of Aristotle as the boar-fish, *Capros aper* L.; Belon and Salviani referred it to the file-fish; and K  lb identified it as *Squalus centrina*

<sup>16</sup> *Grieksche Diernamen* (Purmerend, 1935) 160.

<sup>17</sup> "Hesych" (above, note 3) no. 841; "Athen." (*ibid.*) 253.

<sup>18</sup> *Op. cit.* (above, note 4) 101 and 167.

<sup>19</sup> "Hesych" (above, note 3) no. 842.

L. (*Centrina salviiani* Risso), a type of shark. Gossen<sup>20</sup> and Brands<sup>21</sup> concur with Rondelet and Cuvier in identifying it as the boar-fish, which has a hard, rough skin and a head very similar to that of the boar and is common in the Mediterranean. This species is of no particular importance as a food, since it is deficient in flesh; but such flesh as it has is reputed to be delicate and of appealing flavor.<sup>22</sup>

Archestratus (*apud* Athen. 7.326F) praises the ὕς of Aenus and Pontus, speaking of the head and the back-fin as the most savory parts. He also says that ψαμμῖτις ὀρυκτής or "sand-digger" was a byname of the ὕς; and Athenaeus (7.327A) cites Numenius as referring to it as ῥόθιος ψαμαθῖς or "gluttonous sand-fish." But this is of little help, except to suggest that the fish burrowed in the sand. These bynames bring to mind ψαμμοδύτης or "sand-burrower," a term applied to the scabbard-fish or stargazer, *Uranoscopus scaber* L.,<sup>23</sup> but the scabbard-fish apparently was never called "pig-fish." Moreover, it was held in low regard as a food fish, which does not tally with Archestratus. Hesychius defines ὕς merely as a fish. Gossen,<sup>24</sup> for no ascertainable reason, identifies as *Cubiceps gracilis* Lowe both the ὕς and the ψαμμῖτις ὀρυκτής; but he says<sup>25</sup> that the ψαμαθῖς is perhaps *Seriola dumerili* Risso.

Archestratus, as we have seen, praises the Pontic ὕς, and Antiphanes (*apud* Athen. 7.295c) lauds the Pontic μῦς, which is apparently the file-fish, not the common mussel, since it is mentioned in the midst of references to fishes. It is therefore tempting to regard ὕς as another name for the file-fish. Against this must be weighed the fact that Dioscorides (2.5 W.) speaks highly of the Pontic μῦαξ, which is almost certainly the common mussel, and Archestratus elsewhere (*apud* Athen. 3.92D), in a discussion of shellfish, says that Aenus produced large μῦς, thus apparently differentiating the two names, and Ennius (*Heduph.* 2 Vahl.) probably rightly took the μῦς of Archestratus to be the common mussel, translating the word as *mures*.

Xenocrates (*Alim. aquat.* 9) uses the term σῦες. Oribasius (*Coll. med.* 2.58.21) excerpted this passage of Xenocrates; but in

<sup>20</sup> "Hesych," *loc. cit.*; "Athen." (above, note 3) 252.

<sup>21</sup> *Loc. cit.* (above, note 16).

<sup>22</sup> Cf. Francis Day, *The fishes of Great Britain and Ireland* (London, 1880-84) II, 134.

<sup>23</sup> *Anthol. Pal.* 6.196; Hesych. s.v. Cf. Gossen, "Hesych" (above, note 3) no. 2357; Thompson, *op. cit.* (above, note 4) 75.

<sup>24</sup> "Hesych" (above, note 3) no. 2210; "Athen." (*ibid.*) 259.

<sup>25</sup> "Athen." *loc. cit.*



his text one MS has the reading *ζειῶνες*, and the others have *σειῶνες*, emended by Bussemaker and Daremberg to *ζῆνες* and interpreted as "dories." Gossen<sup>26</sup> concurs in identifying the *ζαιός* of Hesychius (defined as a kind of fish) as the dory, *Zeus faber* L. The following word in Xenocrates, however, is *βάτραχοι* "fishing-frogs" (*Lophius piscatorius* L.); but in Oribasius it is *βραχυκέφαλοι* "small-headed." If the reading in Xenocrates is correct, his *σῦς* or "pig-fish" is perhaps identical with the *καπρίσκος* of Diphilus of Siphnos, for he comments on the foul odor of the *σῦς*, and Diphilus remarks on the foul odor of the *καπρίσκος*. This would make it probably the river-dog, or perhaps the file-fish.

It is very doubtful, however, if the *χοῖρος* or "sucking-pig" of the Nile<sup>27</sup> or that of the Danube<sup>28</sup> should be referred to the file-fish, even though this species is called *μονόχοιρος* or "lone-pig" in Greece today.<sup>29</sup> Thompson<sup>30</sup> demonstrates that the Nile *χοῖρος* is apparently one of the synodonts, especially the common schall, *Silurus schall* Bloch, although Gossen<sup>31</sup> identifies it as *Tetrodon fahaka* Stud. Gossen<sup>32</sup> refers Aelian's Danube *χοῖρος* to *Acipenser glaber* Heck., a sturgeon of the Black Sea and the Sea of Azov which ascends the Danube.

Pliny (*N.H.* 9.45) mentions a *porculus marinus*, but gives no clue to its identity except that it was very similar to the Danubian *silurus*, or, according to another reading, to the Danubian *mario*. The term *σιλουρος* was used by the Greeks as a name for several fishes. The huge fish caught in the Danube is almost certainly the sheatfish, *Silurus glanis* L. Gesner, reading *mario* in this passage, associated the word with *μαρίς*, defined by Hesychius as a Cretan term for the *σῦς*. Modern Greek *μούρουννα*, possibly related to this word, denotes a type of sturgeon;<sup>33</sup> and the sturgeon is also a huge

<sup>26</sup> "Hesych" (above, note 3) no. 610.

<sup>27</sup> Cf. Athen. 7.312B; Strabo 17.823; *Geopon.* 20.7.1.

<sup>28</sup> Cf. Aelian. *Nat. an.* 14.23.

<sup>29</sup> Cf. H. A. Hoffman and D. S. Jordan, "A catalogue of the fishes of Greece," *Proceedings of the Academy of Natural Sciences of Philadelphia*, 1892, 278.

<sup>30</sup> *Op. cit.* (above, note 4) 291.

<sup>31</sup> "Athen." (above, note 3) 253.

<sup>32</sup> "Aelian" (above, note 13) par. 98.

<sup>33</sup> For further data on this name, cf. G. D. Nardo, "Sulla etimologia de' nomi volgari che si danno alle varie specie di Storioni (*Acipenser*) viventi nelle venete acque, e particolarmente sull' *Attilus* di Plinio, detto comunemente Ladano che pescasi nel fiume Po," *Atti del R. Istituto Veneto di Scienze, Lettere, e Arte*, 4th ser., vol. 3 (1873) 1768.

fish that occurs in the Danube. Pliny (*N.H.* 32.150) lists a *porcus* in his catalog of fishes, but with no descriptive details. In another passage (*N.H.* 32.56) he speaks of the painful wounds inflicted by the poisonous dorsal spines of the *porcus marinus*. Whether the comparison in the first cited passage is to the *silurus* or to the *mario*, we are concerned with a fish of considerable size, unless the resemblance is only one of form, for the sheatfish and the sturgeon are the largest two freshwater fishes of Europe, attaining a weight of several hundred pounds.

The modern names of the porpoise, *Phocaena communis* Less.,<sup>34</sup> suggest that this may be the *porcus* or *porculus* of Pliny, for *porcus piscis* is the source of such terms for the porpoise as Old French *pourpois* and Norman *purpe*, as well as *pisi porcu* in Reggio and Calabria. Modern Greek *γυρουνόψαρο* or "hog-fish" provides a semantic parallel. But the porpoise, although it qualifies in size, lacks sharp dorsal spines.

The file-fish, *Balistes capriscus* L., has been called *pesce porco* at Naples and *pisci porcu* at Messina and Catania.<sup>35</sup> But this species in no respect fits the description of Pliny.

*Centrina salviani* Risso, a type of shark, has been known as *porc* and *porc* or *puerco de mar* in Valencia and Catalonia, *porch mari* at Mallorca, *peis-porc* and *pouar-marin* in the Provence, *porc* and *pei puorc* at Marseille, *pescio porco* at Genoa, *porco di mare* and *pesce porco* at Rome, *pesce porco* at Naples, Venice, and Trieste, *puerco* at Naples, *pisci porcu* at Catania, and *porco* at Venice.<sup>36</sup> It is currently called *peixe porco* in Portugal, *porc de mar* and *porc* in Valencia, and *porch mari* in Catalonia.<sup>37</sup> In Modern Greek, this species, like the porpoise, is called *γυρουνόψαρο*.<sup>38</sup> Both dorsal fins of this species are armed with sharp spines, a characteristic of the family of *Spinacidae*, of which it is a member. Although *Centrina salviani* does not closely resemble either the sheatfish or the sturgeon, it fits the description of Pliny in two important particulars, its size (about six feet) and the possession of sharp dorsal spines. Moreover, the name *porcus* survives in the Romance nomenclature as a

<sup>34</sup> Cf. H. Schuchardt, *Zeitschr. f. Rom. Phil.* 30 (1906) 723-724; W. Meyer-Luebbe, *Romanisches etymologisches Wörterbuch*<sup>3</sup> (Heidelberg, 1935) 553.

<sup>35</sup> Cf. Carus, *op. cit.* (above, note 10) II, 539.

<sup>36</sup> Cf. Carus, *op. cit.* II, 502.

<sup>37</sup> Cf. Lozano Rey, *Fauna iberica* (Madrid, 1928) I, 468.

<sup>38</sup> Cf. Hoffman-Jordan, *op. cit.* (above, note 29) 236.

common term for this species. It seems likely, therefore, that the *porcus* or *porculus* of Pliny is *Centrina salviani*.

Pliny (*N.H.* 32.19) quotes Apion as saying that the largest of fishes was the *porcus*, called *orthagoriscus* by the Lacedaemonians, and states that it grunted when taken. This cannot be Pliny's marine *porcus* or *porculus*, which is probably *Centrina salviani*, for this species hardly qualifies as *piscium maximum*. 'Ορθαγορίσκος was nominally a Lacedaemonian term for a sucking-pig,<sup>39</sup> hence synonymous with χοῖρος, which perhaps was the term actually used by Apion, translated by Pliny as *porcus*.

The *orthagoriscus* of Pliny was referred by Rondelet<sup>40</sup> to a fish then known as *mole* at Marseille, apparently the headfish or sunfish, *Orthagoriscus mola* L. A. Steier<sup>41</sup> says that its ability to utter a sound suggests a species of *Trigla*. Thompson<sup>42</sup> calls it a local name for an unknown fish.

The largest freshwater fishes of Europe, as has already been stated, are the sheatfish and the sturgeon. Of these, the sheatfish possesses unusual vocal powers. If Apion's fish is a freshwater type, as seems highly probable, it must be the sheatfish, *Silurus glanis* L. That a diminutive such as χοῖρος or ὀρθαγορίσκος should be applied to it is no more surprising than the use of *porculus* as a term for the six-foot *Centrina salviani*, and a common denominator is found in the fact that the two were supposed to resemble one another.

The fish-name *marisopa* occurs in Polemius Silvius (p. 544.5 Mommsen). Schuchardt,<sup>43</sup> who refers *porcus piscis* to the porpoise, refers this name to the same species and interprets it as meaning "sea-swine." He says that this term is still in use on the Atlantic seaboard (the porpoise being rare in the Mediterranean), appearing in Spanish and Portuguese as *marsopa* and *marsopla*. According to Schuchardt, *marsopla* is not a diminutive, but a form that arose by contamination of *soplar*, because of the porpoise's habit of blowing water through its nose. *Marsopa* represents *marsuppium* "pouch, purse" with a feminine ending. This name \**marsuppa*, he says, like *porcus* (*marinus*) or *porcus piscis*, is based on the round

<sup>39</sup> Cf. Athen. 4.139B; Hesych. s.v. and s.v. ὀρθαγορίσκεια.

<sup>40</sup> *Libri de piscibus marinis* (Lugduni, 1554) 426 and 427.

<sup>41</sup> *Aristoteles und Plinius, Studien zur Geschichte der Zoologie* (Würzburg, 1913) 87.

<sup>42</sup> *Op. cit.* (above, note 4) 185.

<sup>43</sup> *Loc. cit.* (above, note 34).

form of the porpoise. According to Isidore (*Orig.* 12.6.12), the common people in his day used *suillus* instead of *porcus marinus*. Schuchardt assumes that there was a fusion of a form *maris suillus* with *\*marsuppa*, yielding either *marisopa*, as in Polemius Silvius, or *\*marsuillus*, imitated by the Celts in *\*morisukku*, Cymric *morhwch*, and by the Germans in *\*mari-swin*. His assumption of a form *\*marsuppa* is confirmed by the actual occurrence of the word in the *Vita S. Filberti* (*Acta SS. Boll.* 20 Aug., pp. 75–81). From this it appears probable that *porcus*, although used by Pliny of the marine *Centrina salviani* and the freshwater *Silurus glanis*, was employed in popular speech to some extent as a term for the porpoise.

T. G. Tucker<sup>44</sup> believes that the application of the term *porcus* to a fish is independent of its application to the pig. He says that the responsible factor in the one case is prickly fins and in the other a bristly skin. Fr. Muller<sup>45</sup> thinks that *porcus* is related to *πέρκη* and denoted a speckled or spotted fish, its resemblance to *πόρκος* "swine" leading Pliny astray. Schuchardt, as already mentioned, regards *porcus* as an extension of the name from the pig to the fish because of the latter's round form. None of these explanations is entirely satisfactory. The characteristic most often remarked in ancient sources is the pig-like grunting sound uttered by the fish. This suggests that we are concerned with a direct extension from pig to fish based upon similarity of the vocal sound.

Aristotle (*H.A.* 535B.18; cf. *De an.* 420B.12) speaks of a *κάπρος* that was found in the Achelous River in Greece and comments on the grunting sound it made. Aelian (*Nat. an.* 10.11), speaking as though from personal knowledge, says that the *κάπρος* actually did make a grunting sound, as Aristotle reported. Gossen<sup>46</sup> referred this *κάπρος* of Aelian to the boar-fish, *Capros aper*, a species which is alleged to utter a grunting sound, although this is not certain.<sup>47</sup> A more important fact is that the boar-fish is marine and therefore cannot be the fish described by Aristotle and Aelian. Pliny (*N.H.* 11.267–268) quotes the above passage of Aristotle, using *caper* (or *aper*) to translate *κάπρος*. Thompson<sup>48</sup> says that it is not impossible

<sup>44</sup> *A concise etymological dictionary of Latin* (Halle, 1931) 191.

<sup>45</sup> *Altitalisches Wörterbuch* (Göttingen, 1926) 351.

<sup>46</sup> "Aelian" (above, note 13) par. 116.

<sup>47</sup> Cf. Day, *op. cit.* (above, note 22) I, 134.

<sup>48</sup> *Op. cit.* (above, note 4) 162.

that this *κάπρος* is the *γλάνις*, i.e., *Parasilurus aristotelis* Ag., a species of catfish which inhabits the Achelous River and belongs to a family remarkable for its vocal powers.

Since Athenaeus (8.331D) quotes Aristotle as saying that only the river *χοῖρος* and the parrot-fish utter a sound, one would infer that Aristotle's river *χοῖρος* is identical with the *κάπρος* which he associates with the Achelous River. Thompson,<sup>49</sup> however, cites a statement that the schall often makes a peculiar creaking noise, especially when it has been hooked. This suggests that the river *χοῖρος* is actually the Nile *κάπρος* previously discussed. In this connection, it must be noted that Aristotle actually speaks of other fish as vocal. For example, in the same passage in which he speaks of the *χοῖρος* as a vocal fish (*H.A.* 535B.14) he also so describes the *λύρα*, the *χρόμις*, the *χαλκίς*, and the *κόκκυξ*, commenting that some of the *σελάχαι* produce sounds, as well as the dolphin. Oppian (*Hal.* 1.134), incidentally, says that only the parrot-fish utters a sound.

Archestratus (*apud* Athen. 7.305E-F) speaks of the *κάπρος* as a rare fish found in Ambracia, familiar only to anglers highly skilled in the use of the rod, and exceedingly tasty. In another passage devoted to shellfish (*ib.* 3.92D) he interpolates a reference to the famous *κάπρος* of Ambracia. By Ambracia, Archestratus almost certainly meant the Aratthus River in Epirus, which flows by the city of Ambracia. The watershed of this river is contiguous to that of the Achelous River, and it is therefore probable that the *κάπρος* of Archestratus is identical with that of Aristotle. The fact that an Attic cook<sup>50</sup> lauds the *κάπρος* of Argos in almost the same terms as Archestratus praises the *κάπρος* of Ambracia indicates that the same fish occurred there.

The *apriclus piscis* of Ennius (*Heduph.* 6), which was of best quality at Tarentum, is probably not the same fish. Ennius imitated Archestratus, and in this instance probably used the latter's account of the *κάπρος* (*apud* Athen. 7.305E). But the freshwater *κάπρος* of Archestratus found in Ambracia can hardly be the same fish as the marine *apriclus* caught at Tarentum.

This brings us to the term *ποικιλίας*, almost certainly a derivative of *ποικίλος* "spotted, speckled, mottled." Clearchus (*apud* Athen. 8.332E) speaks of a vocal fish which was found in the vicinity of Clitor in the Ladon River, commenting that it uttered sounds, and

<sup>49</sup> *Op. cit.* (above, note 4) 291.

<sup>50</sup> Cf. Philemon *apud* Athen. 7.288F.

in fact made considerable noise. This is surely the same vocal fish which Mnaseas (*apud* Athen. 8.331D) locates in the Clitor River, for this is a tributary of the Aroanius River, which flows into the Ladon River. Philostephanus (*ibid.*) says that in the Aroanius River there were fishes which uttered a sound like *κίχλαι* and were called *ποικιλίαι*. This is apparently the same fish. Pliny (*N.H.* 9.70) identifies this vocal fish found in the vicinity of the city of Clitor with the *exocoetus* or *adonis*, but perhaps erroneously, for the latter was usually a marine fish. If the names *exocoetus* and *adonis* actually were applied to this freshwater fish, it is strange that there is no mention elsewhere either of the application or of the habit of coming out of the water to which the terms allude. Pliny's comment that the fish was said to lack gills is equally suspect, for such a false belief applies rather to the lamprey, in which the gills are modified out of easy recognition. Apparently Pliny in quoting a Greek source confused *βρόγχον* "throat" with *βράγχιον* "gill."<sup>51</sup> Pausanias (8.21) relates that the *ποικιλίας* was said to utter a sound like that of the bird *κίχλη*. He reports that he had personally seen it caught in the Aroanius River, but he did not hear it utter a sound, although he waited on the bank until sunset, when the fishes were said to be most vocal.

*Κίχλη* was a term for the thrush, but it was also a name for a kind of fish, apparently a type of wrasse, such as *Coricus rostratus* C.V. This suggests that the reference of Philostephanus is to the fish rather than to the bird, and that Pausanias was the innocent butt of a local jester. Upon learning of an unusually vocal fish in the Aroanius River, his natural reaction would be to ask what kind of sound it made. The reply apparently was that it made a noise like a *κίχλη* (the fish?). When he expressed surprise that a fish could sing like a *κίχλη* (the bird), he was assured that this was so, and that he need only sit on the bank to hear it, waiting if necessary until sunset, when there was practically a chorus. The chief difficulty is that *Coricus rostratus*, to which *κίχλη* is usually referred, is not a vocal fish and in fact does not make a sound of any kind. Therefore, unless the identification of the *κίχλη* is abandoned in favor of a gurnard or some similar fish, we are forced to conclude that the fish in the Aroanius River either made or was alleged to make a sound like the note of a thrush. It must be stressed, in

<sup>51</sup> Cf. Athen. 8.332c and f.

this connection, that there is no textual justification for assuming that the point of resemblance was form or coloration.

The above accounts locate an unusually vocal fish called *ποικιλίας* in Arcadia, in the same general region as Argolis, Aetolia, and Epirus, where the *κάπρος* occurred. This suggests that it may be the same fish.

To summarize the data, the fish apparently occurred in various rivers of Arcadia, Argolis, Aetolia, and southern Epirus. It was variously known as *κάπρος*, *χοῖρος*, and *ποικιλίας*. It uttered a sound and was speckled or mottled. It was held in high esteem as a food fish of unusually good quality, but was exceedingly difficult to catch with a rod.

Proposed identifications of this fish have in some instances been little short of absurd. Conrad Gesner<sup>52</sup> thought that the *ποικιλίας* might be the *Schlammpeisker*, i.e., the groundling, *Cobitis*, alleged to utter a sound. Since then, this fish-name has been largely neglected. Müller<sup>53</sup> suggested that the color pattern implied by the name pointed to *Cobitis fossilis*. Gossen,<sup>54</sup> assuming that this must be a bright-colored river-fish, settles on *Rhodæus amarus* Bloch. Thompson<sup>55</sup> does no more than cite the pertinent passages of Philostephanus and Pausanias.

Rondelet<sup>56</sup> could not believe that the *κάπρος* and the *καπρίσκος* were the same fish, since the *καπρίσκος* had a foul smell and hard flesh, while the *κάπρος* was highly praised by Arcestratus. The detailed evidence presented shows that his opinion has a firm basis in fact, in that *κάπρος* was used more particularly as a term for the river fish. Fr. Strack<sup>57</sup> and R. Cresswell<sup>58</sup> identified Aristotle's *κάπρος* as the sea-poacher, *Cottus catophractus*, or *Squalus centrina* (*Centrina salviani* Risso), disregarding the fact that it is a freshwater fish. Gossen fell into the same error when he identified it as the boar-fish, *Capros aper*. It has already been noted that Thompson tentatively identifies the *κάπρος* with the *γλάνις* of the ancients, i.e., *Parasilurus aristotelis* Ag. If the identity of this freshwater *κάπρος* with the

<sup>52</sup> *Historia animalium*, Lib. iv, *De piscium et aquatiliū animalium natura* (Tigur., 1558) 737.

<sup>53</sup> *Archiv für Anatomie*, 1857, p. 262.

<sup>54</sup> "Athen." (above, note 3) 240.

<sup>55</sup> *Op. cit.* (above, note 4) 203-204.

<sup>56</sup> *Op. cit.* (above, note 40) 161.

<sup>57</sup> *Aristoteles Naturgeschichte der Thiere* (Frankfurt, 1816).

<sup>58</sup> *Aristotle's history of animals* (London, 1862).

*ποικιλίας* is accepted, there is a further point in favor of *Parasilurus aristotelis* in addition to those already given, for this species can correctly be described as speckled or mottled.<sup>59</sup>

Oppian (*Hal.* 1.129) mentions the *σάινα* or "pig-fish" along with the surmullet and others as a fish frequenting rough rocks along sandy shores. The scholiast comments: *ὑσκαί· ἢ σνάκιον ἢ σάινα*. But he also uses *ὑσκη* to interpret *ῥαινα*, which will be discussed presently. Hesychius defines *σνάριον* as *βούγλωσσον*. Ducange defines *σιάκιον* as *σάαξ*.

Thompson<sup>60</sup> points out that Heldreich gives Modern Greek *οῦαινα*, *οὔγκινα*, and *χάινα* as names of *Charax puntazzo*, a sea-bream closely related to the sargues, known as *zucco* at Naples and Taranto. He thinks that *σάινα* may be this very fish.

The *σνάκιον* is also mentioned by Hierophilus.<sup>61</sup> Oppian (*Hal.* 3.371–397) describes in detail a method of catching a fish known as *ἄδμων* or *ἄδμος* by means of an osier trap, to which small fry are attracted and serve as bait; but he gives no clue to the identity of the fish except an indication of voracity. The scholiast defines *ἄδμωνες* as a type of *σνάκιον*. Mair<sup>62</sup> says that this points to some species of flatfish, since in Late Greek *σάαξ*, *σνάκιον* is equivalent to *ψῆττα*, calling attention to Ducange, where *ψῆττα* is given as a synonym of *σῶαξ*, *σνάκιον* (*σιάκιον*). In lemmas *ρόμβος* is given as a synonym of *σνάκιον*. Thompson<sup>63</sup> calls the *ἄδμωνες* an unknown sea-fish, maintaining that this indirect identification of it with the plaice or turbot or other flatfish is not supported by Oppian's description.

The names *ῥς*, *ῥαινα*, and *ῥαινίς* appear in various quotations in the same section in Athenaeus (7.326E–F), giving the impression that he regarded them as variants of the same name, although as animal names *ῥς* denoted the pig and *ῥαινα* and *ῥαινίς* the hyena, and as a fish-name *ῥς* is probably not synonymous with *ῥαινα* and *ῥαινίς*. According to F. A. Wood,<sup>64</sup> these three Greek fish-names, as well

<sup>59</sup> Samuel Garman (*Bulletin of the Essex Institute*, 22 [1890] 57) described it as follows: "The coloration of the back and the top of the head is brownish, of the sides silvery with rather coarse brown punctulations arranged in irregular nebulous groups which approximate to blotches along the base of the anal and on the anterior half of the caudal side."

<sup>60</sup> *Op. cit.* (above, note 4) 253.

<sup>61</sup> *Nutr. meth.* 4.4 (in Ideler, *Phys. et med. gr. min.* I, 412).

<sup>62</sup> Note on Oppian. *loc. cit.*

<sup>63</sup> *Op. cit.* (above, note 4) 2–3.

<sup>64</sup> "Greek fish names," *AJPh* 48 (1927) 315.



as Latin *hyaena*, probably refer to the fish's bristly fin, just as they refer to the bristly mane of the hog and the hyaena when used as animal names. Dionysius (*apud* Athen. 7.326F) uses the form *ὑαίνα*; Numenius (*ib.*) mentions the *ὑαίνα* in association with the *κανθαρίς* (the black sea-bream, *Cantharus lineatus* Thompson) and the *τριγλή* (the surmullet, *Mullus* sp.). Epicharmus (*ib.* 7.330A and 326E) mentions the *ὑαίης* in conjunction with the *βούγλωσσο*s (probably a type of sole, *Solea* sp.) and the *κίθαρος* (perhaps the lantern-flounder, *Arnoglossus laterna* Gthr.) and also (*ib.* 7.326E) in association with the *χαλκίς* (probably the pilchard, *Clupea sardina* Cuv.), the *ἰέραξ* (probably the flying blenny, *Exocoetus volitans* Cuv.), and the *κῶων* (a dogfish or small shark). Evidence from other sources adds very little. Aelian (*Nat. an.* 9.49) classifies the *ὑαίνα* among the *κήτη*, which marks it as a very large fish, and says that it was an evil omen to mariners. Oppian speaks of the "dreadful weight of the *ὑαίνα*" (*Hal.* 1.372) and says that the marine *ὑαίνα* is even fiercer than its terrestrial namesake (*ib.* 5.32). Pliny (*N.H.* 32.154) had seen the *hyaena piscis* caught at Ischia.

Bouros<sup>65</sup> identified the fish as the puntazzo, *Charax puntazzo*. As has already been mentioned, Heldreich gives Modern Greek *οὔαινα*, *οὔγκινα*, and *χῦαινα* as names of this species; and Bikélas,<sup>66</sup> also identifying the *ὑαίνα* as the puntazzo, gives Modern Greek *οὔαινα* and *οὔγκαίνα*, as well as *χοῦγαίνα* at Istanbul. No confirmation of this identification is found in the Romance nomenclature, except that this species is called *purciello* (dial.) at Bari.<sup>67</sup>

Gossen<sup>68</sup> initially regarded *ὑαίνα* and *ὑαίης* as synonymous, but different from *ῥς*, and identified the fish as *Rhomboidichthys podas* De la Roche (properly Günther). Later<sup>69</sup> he concluded that *ὑαίνα* is distinct from *ὑαίης* and identified it as the ox-ray or cow-shark, *Hexanchus griseus* Raf. (or Gmelin). The former species is known today mostly by names that go back to Latin *rhombus* or Greek *\*pelaia*, and the latter is generally called "cow-fish." Neither is

<sup>65</sup> *Isis* (ed. von Oken), 1841, col. 547.

<sup>66</sup> "Sur la nomenclature moderne de la faune grecque," *Annuaire de l'Association pour l'Encouragement des Études Grecques*, 12 (1878) 227.

<sup>67</sup> Cf. *La pesca nei mari e nelle acque interne d'Italia*, Ministero dell' Agricoltura e delle Foreste (Roma, 1931) III, 37.

<sup>68</sup> *RE* s.v. "Schollen."

<sup>69</sup> "Aelian" (above, note 13) par. 86; "Hesych" (above, note 3) no. 2176.

called by any names that go back to *hyaena* or represent a semantic parallel.

Thompson<sup>70</sup> regards *ῥαῖνα* and *ῥαῖνις* as variants of a single name applied to two different fishes, one the puntazzo (in Numenius and Epicharmus) and the other a fierce and monstrous, but unknown fish (in Oppian and Aelian).

The synonymy of *μῦς* and *καπρίσκος* reflects a limited overlapping of *μῦς* with pig-names, a tendency to apply these radically different names to the same fish. The factor which largely determined the application of *μῦς* to a fish was fierceness, belligerency, voracity. One application of *μῦς* was to the whale, which would impress the casual and infrequent observer as a fierce and savage monster. The fierce and monstrous *ῥαῖνα* of Oppian and Aelian may well be this mammal. It is noteworthy, in this connection, that Pliny saw fit to report that he had actually seen a *hyaena* caught, as though this were a rare event.

As has already been mentioned, the scholiast on Oppian uses the term *ῥσκη* in commenting on both *ῥαῖνα* and *ῥαῖνα*. Simeon Seth says that the *ῥσκα* was commonly called *ῥσχη*, on which Thompson<sup>71</sup> remarks that the latter is supposed to be the sturgeon, Latin *huso*. Coray associates the *ῥσκη* with the *ῥσχα* which Ptochoprodromus mentions in connection with the *βάτραχος* and the *ψῆττα*, i.e., the fishing-frog and the sole, much as Xenocrates mentions the *σῶς* in close connection with the *βάτραχος*.

The fish-name *ῥκη* or *ῥκης* appears to be closely related to *ῥσκη* and its variants. Hesychius has the variants *ῥκος* and *ῥκος*. Strömberg<sup>72</sup> thinks that it is a derivative of *ῥς* "swine," although uncertain of the reason for the application. Thompson<sup>73</sup> believes that the *ῥκη* is similar to, if not identical with, the *ῥαῖνα*, which he thinks may be the puntazzo. Gossen<sup>74</sup> identifies the *ῥκη* as *Apogon imberbis* L. Numenius (*apud* Athen. 7.327B) mentions the *ῥκη* along with the *σπάρος* and the *φάγρος* (both sea-brems) as running in schools; Timaeus (*ib.*) relates that the first colonists who came to Sicily found these fishes spawning, and named the region Hycara after them; Callimachus (*ib.* 7.327A) speaks of it as a sacred fish; Her-

<sup>70</sup> *Op. cit.* (above, note 4) 272.

<sup>71</sup> *Op. cit.* (above, note 4) 253.

<sup>72</sup> *Op. cit.* (above, note 8) 100-102.

<sup>73</sup> *Loc. cit.* (above, note 71).

<sup>74</sup> "Athen." (above, note 3) 252.

mippus of Smyrna (*ib.* 7.327c) and Philitas (frg. 17 B.<sup>4</sup>) give it as another name for the *ιουλis* (the rainbow-wrasse, *Coris iulis* Gthr.).<sup>75</sup> It was also a name for the *ερυθρινος*,<sup>76</sup> more especially at Cyrene.<sup>77</sup> 'Ερυθρινος appears to have been used in two senses, first as an explicit term for a red, hermaphroditic fish of the deep sea (probably one of the perches, perhaps the Mediterranean barbier, *Serranus anthias* C.V.),<sup>78</sup> and second as a descriptive term alluding to the red color of the fish (perhaps the becker, *Pagellus erythrinus* C.V., one of the sea-brems).<sup>79</sup>

Thompson<sup>80</sup> calls attention to *zuco* for *Charax puntazzo* in Sicily, *vučic* at Spalato for *Serranus hepatus*, and *vaca*, *vaca serrana*, and *vacca* in various parts of the Mediterranean for *Serranus cabrilla*, all these fishes more or less similar to the *ερυθρινος*. As he says, the resemblance of these names to *ῥκη* is conjectural. As a matter of fact, they can as plausibly be regarded as variants of a name meaning "cow-fish."

The usual Greek name of the conger-eel, *Conger vulgaris* Cuv., was *γόγγρος*. Nicander (*apud* Athen. 7.288c) says that it was also called *γρύλλος*, while Diphilus (*ib.* 8.356A) speaks of the *γρύλλος* as resembling the freshwater eel, but as being of poor taste. There is little doubt that we are concerned here with a byname of the conger-eel, although Gossen<sup>81</sup> identifies the *γρύλλος* as the related *Conger balearicus* De la Roche, and Thompson<sup>82</sup> suspects that the word should be *γρύγγος* or *γρόγγος*. *Γρύλλος* is a term for a sucking-pig, synonymous in meaning with *χοῖρος* and so defined by Hesychius. Strömberg<sup>83</sup> regards it as a direct extension from the pig to the conger-eel, like *ῥς*, *χοῖρος*, and *κάπρος*, applied because of the grunting sound made by the fish. It is also possible that the conger-eel was called *γρύλλος* because of its greediness; but it must be noted

<sup>75</sup> Cf. Georg Schmid, "Die Fische in Ovids Halieuticon," *Philologus*, Supplement-band 11 (1907-10) 292; Gossen, "Hesych" (above, note 3) no. 2186; "Aelian" (above, note 13) par. 123; Thompson, *op. cit.* (above, note 4) 91.

<sup>76</sup> Hesych. s.v. *ῥκος*.

<sup>77</sup> Cf. Cleitarch. *apud* Athen. 7.300f; Zenodot. *ibid.* 7.327b; Callimach. *ibid.* 7.284c.

<sup>78</sup> Cf. Schmid, *op. cit.* (above, note 75) 291; Wellman, *RE* s.v. "Erythrinus"; Mair, note on Oppian. *Hal.* 1.97; Thompson, *op. cit.* (above, note 4) 65-67, and note on Aristot. *H.A.* 538A.20.

<sup>79</sup> Cf. Thompson, *loc. cit.*

<sup>80</sup> *Op. cit.* (above, note 4) 272.

<sup>81</sup> "Athen." (above, note 3) 245.

<sup>82</sup> *Op. cit.* (above, note 4) 49.

<sup>83</sup> *Op. cit.* (above, note 8) 68-69.

that γρῦ denotes a grunt, and the verbs γρούζω and γρουλλίζω mean "to grunt like a pig."

Some problems of etymology and of the basis of application of certain names have already been discussed. To the writer it seems that in general these names represent direct and conscious extensions of animal names to various fishes and that the factors responsible for these applications are certain points of resemblance. It is only infrequently that we find descriptive clues that emphasize such points of similarity. The few that we do find, with special reference to pig-names, fall into two groups. The ψαμαθίς (a byname for the ὕς) was gluttonous, and the ἄδμων (a type of σνάκιον) was voracious. The κάπρος, χοῖρος, and ὀρθαγορίσκος uttered a grunting sound. Here we have two salient characteristics of the hog, either of which, if observed in a fish, might easily have led to its being called "pig-fish." It is in such natural extensions as these that one should seek the basis of application of such names, especially when descriptive clues are lacking, rather than in labored and dubious etymologies. Strömberg generally adheres to this principle, and in his discussion of pig-names<sup>84</sup> mentions various factors that might be responsible for a fish being called "pig," viz., (1) it resembled the pig in external appearance, such as fatness, clumsiness, a stubby snout, thick lips, etc.; (2) it uttered a grunting sound; (3) it was despised as being worthless to man as a food; (4) it ate acorns; and (5) it lived in the mud. These are plausible and reasonable suppositions, but they do not stand up when the evidence is carefully examined. In actual practice, a fish apparently was generally called "pig" because it grunted like a pig or ate like a pig.

For convenience, the findings of this article are tabulated below, with references to the identifications of *LSJ*, Thompson (T.), and Gossen (G.):

#### Greek names

\*Ἄδμων (247): Perhaps the puntazzo, *Charax puntazzo* Gmelin, or perhaps a type of flatfish. *LSJ*: A kind of sea-fish. T.: An unknown sea-fish.

Γρούλλος (250): The conger-eel, *Conger vulgaris* Cuv. So *LSJ* and T. (synonym of γόγγρος). G.: *Conger balearis* De la Roche.

Καπρίσκος (237): Probably the river-dog, *Hydrocyon forskalii*. *LSJ*: Diminutive of κάπρος. T.: An unidentified fish. G.: The file-fish, *Balistes caprisus*.

<sup>84</sup> *Op. cit.* (above, note 8) 102.

Κάπρος (238): (a) The file-fish, *Balistes capriscus* L., or a type of globe-fish, such as *Tetrodon lineatus* L.; (b) the river-dog, *Hydrocyon forskalii*; (c) perhaps *Parasilurus aristotelis* Ag.; (d) the boar-fish, *Capros aper* L. *LSJ*: A sea-fish, *Capros aper*. T.: Possibly another name for the γλάνις (i.e., *Parasilurus aristotelis*). G.: The boar-fish, *Capros aper*.

Μῦς (232): (a) The common mussel, *Mytilus edulis* L.; (b) primarily the file-fish, *Balistes capriscus*, perhaps also one of the globe-fishes, such as *Tetrodon lineatus*, and perhaps the river-dog, *Hydrocyon forskalii*; (c) perhaps the whale, especially *Balaena* sp. *LSJ*: (a) A shell-fish, mussel; (b) a large kind of whale; (c) the file-fish, *Balistes capriscus*. T.: (a) The common mussel, *Mytilus edulis*; (b) probably a turtle; (c) the whale, especially *Balaena* sp. G.: *Lophius budegassa* Spin.

Ὀρθαγοπίσκος (242): Probably the sheatfish, *Silurus glanis* L. *LSJ*: Name of a fish. T.: An unknown fish.

Ποικιλίας (244): Perhaps *Parasilurus aristotelis* Ag. *LSJ*: A kind of fish. T.: Unidentified. G.: *Rhodeus amarus* L.

Σάβαινα (247): Perhaps the puntazzo, *Charax puntazzo*. *LSJ*: Name of a sea-fish. T.: An unknown fish.

Σνάκιον (247): A variant of σάβαινα. *LSJ*: Diminutive of σῶαξ. T.: A variant of σάβαινα.

Σνάριον (247): A variant of σάβαινα. *LSJ*: Not listed. T.: A variant of σάβαινα.

Σῶς (239): Perhaps the river-dog, *Hydrocyon forskalii*. *LSJ*: No allusion to use as a fish-name. T.: Unidentified.

Ῥταίνα (247): (a) Perhaps the river-dog, *Hydrocyon forskalii*; (b) perhaps the whale, especially *Balaena* sp. *LSJ*: A sea-fish. T.: (a) The puntazzo, *Charax puntazzo*; (b) an unknown fish. G.: *Hexanchus griseus* Raf.

Ῥταίνις (247): A variant of Ῥταίνα. *LSJ*: A synonym of Ῥταίνα. T.: A variant of Ῥταίνα. G.: *Rhomboidichthys podas* De la Roche.

Ῥκη (249): Possibly the puntazzo, *Charax puntazzo*. *LSJ*: A sea-fish. T.: An unidentified fish. G.: *Apogon imberbis* L.

Ῥς (239): Probably the river-dog, *Hydrocyon forskalii*, or perhaps the file-fish, *Balistes capriscus*. *LSJ*: A synonym of Ῥταίνα. T.: An unidentified fish. G.: *Cubiceps gracilis* Lowe.

Ῥσκη (247): Perhaps the puntazzo, *Charax puntazzo*. *LSJ*: Unlisted. T.: Unlisted.

Φάγρος (237): (a) The marine type is the braize, *Pagrus vulgaris* C.V.; (b) the river type is probably the river-dog, *Hydrocyon forskalii*. *LSJ*: A sea-bream or braize, *Pagrus vulgaris*. T.: (a) The braize, *Pagrus vulgaris*; (b) perhaps the great Nile perch, *Lates niloticus*, or the river-dog, *Hydrocyon*. G.: *Polypterus bichir*.

Χοῖπος (240): (a) Perhaps the schall, *Silurus schall* Bloch; (b) perhaps *Parasilurus aristotelis*; (c) a type of sturgeon, or the sheatfish, *Silurus glanis* L.; (d) the file-fish, *Balistes capriscus*, or the boar-fish, *Capros aper*. *LSJ*: A fish of the Nile. T.: Perhaps the schall. G.: (a) *Tetrodon fahaka* Stud.; (b) *Acipenser glaber* Heck.

Ψααθίς (239): Possibly the file-fish, *Balistes capriscus*. LSJ: A sea-fish. T.: An unidentified fish. G.: *Seriola dumerili* Risso.

Ψαμμῆτις (239): A variant of ψααθίς. LSJ: A sand-eel. T.: An unidentified fish. G.: *Cubiceps gracilis* Lowe.

#### Latin names

*Apriclus piscis* (244): Possibly the file-fish, *Balistes capriscus*, or the boar-fish, *Capros aper*, although this is very uncertain.

*Caper* (243): Perhaps *Parasilurus aristotelis*.

*Marisopa* (242): Probably the porpoise, *Phocaena communis* Less.

*Mus marinus* (234): Probably the file-fish, *Balistes capriscus*, or *Tetrodon lineatus*.

*Musculus* (236): (a) The common mussel, *Mytilus edulis* L.; (b) the whale, especially *Balaena* sp.; (c) the pilot-fish, *Naucrates ductor* Cuv.

*Porcus* or *porculus* (240): (a) Marine type the shark *Centrina salviani* Risso and the porpoise, *Phocaena communis* Less.; (b) freshwater type probably the sheatfish, *Silurus glanis* L.

*Sus* (238): Probably the file-fish, *Balistes capriscus*, or a globe-fish, such as *Tetrodon lineatus*.