A new genus and species of *incertae sedis* percomorph fish (Perciformes) from the Eocene of Bolca in northern Italy, and a new genus for *Psettopsis latellai* Bannikov, 2005

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Abstract

A new genus and species of relatively deep-bodied percomorph fish, *Quasinectes durello*, is described based on a single skeleton from the Eocene locality of Bolca (Monte Postale site) in northern Italy. This taxon cannot be accommodated in any known family, and it is placed in the Perciformes *incertae sedis*. Its possible relationships with the "stem pleuronectiform" *Heteronectes* Friedman, 2008 from the same locality are proposed. *Psettopsis latellai* Bannikov, 2005, also from Bolca, is transferred from the monodactylid percoid genus *Psettopsis* to the new genus *Latellopsis* of incertae sedis percomorphs.
Key words: Perciformes, new genus and species, Eocene, northern Italy, Bolca locality.

Riassunto

Un nuovo genere e specie di pesce percomorfo dal corpo relativamente alto, *Quasinectes durello*, è descritto sulla base di un singolo scheletro proveniente dalla località eocenica di Bolca (sito di Monte Postale) nel nord Italia. Questo taxon non può essere collocato in nessuna famiglia conosciuta, ed è quindi inserito in Perciformes *inc. sed*. Vengono ipotizzate le sue possibili relazioni con un gruppo stelo di Pleuronectiformes della stessa località, *Heteronectes* Friedman, 2008. *Psettopsis latellai* Bannikov, 2005, anch'esso proveniente da Bolca, è trasferito dal genere monodattilide *Psettopsis* al nuovo genere *Latellopsis*, un percomorfo *incertae sedis*.
Parole chiave: Perciformes, nuovi genere e specie, Eocene, Italia settentrionale, Bolca.

Introduction

The Eocene marine fishes from Monte Bolca in northern Italy have been known since the mid-sixteenth century (Sorbini, 1981). This locality is exceptionally rich in bony fishes, especially acanthomorphs. Monte Bolca marks the first fossil record of many groups of fishes found on modern coral reefs (Bellwood, 1996). According to the recent list of Bolca fishes (Bannikov, 2014a; Carnevale *et al.*, 2014), the known Actinopterygii in the Bolca fauna belong to 19 orders, 91 families, 192 genera (32 of which are of uncertain family) and at least 220 species. Subsequently, some additional new taxa have been described, and *Bajaichthys* Sorbini was transferred from the Lampridiformes (see Sorbini and Bottura, 1988; Bannikov, 2014b) to the Zeiformes (Davesne *et al.*, 2017). Therefore, the present list of Bolca actinopterygian fishes now has increased to 20 orders, 93 families, 197 genera and at least 226 species. Fish remains have been collected in the fossiliferous layers of the Pesciara and Monte Postale sites of the Monte Bolca locality. These two coeval sites have different fish assemblages and different depositional contexts (Marramà *et al.*, 2016). The fossiliferous sediment of the Pesciara was deposited in a relatively shallow basin with persistent dysoxic or anoxic conditions at the bottom, corroborating the hypothesis of a stagnation deposit with low hydrodynamic energy. The Monte Postale sediments were deposited close to an emerged coastal area, in a setting characterized by seagrass beds, mangroves and coral reefs; preservation of the Monte Postale fish specimens is of lesser quality than those from the Pesciara.

In the collection of the Museo Civico di Storia Naturale di Verona there is a relatively small (ca. 33 mm SL) specimen of an acanthomorph fish skeleton that was found in 1978 at the Monte Postale site. It is a relatively deep-bodied fish superficially resembling a flatfish in its ovoid body with a deep caudal peduncle and a rounded caudal fin. However, this Bolca fish lacks pleuronectiform synapomorphies and it is described below as a perciform of uncertain relationships, *Quasinectes durello* gen. et sp. nov. Although somewhat distorted, the specimen is articulated, which confirms the conclusion of Marramà *et al.* (2016: 242) that the well-preserved fishes from Monte Postale are primarily of small-size. Also, the new fish exhibits such typical Monte Postale taphonomic features as gaping mouth and scales dispersed around the body.

The new discovery leads to a reassessment of the systematic position of the Bolca fish described previously as *Psettopsis latellai* (Bannikov, 2005). A new genus of the incertae sedis perciforms is erected to accommodate this species.

Methods

The specimen of *Quasinectes durello* gen. et sp. nov. was examined using a Wild Heerbrugg stereomicroscope equipped with a camera lucida drawing arm and measurements were taken with a dial caliper to the nearest 0.1 mm. Some details of the specimen were best seen when the specimen was moistened with alcohol during microscopic examination. The specimen was prepared by needle.

Interneural and interhaemal spaces are numbered based on the vertebra whose neural or haemal spine forms the anterior border of the space, with the first space being between the first and second neural or haemal spines (following Baldwin and Johnson, 1993; Bannikov and Tyler, 1995; Tyler and Bannikov, 1997; etc.).

Abbreviations are as follows: *Institutional*: MCSNV – Museo Civico di Storia Naturale di Verona; MFB – Museo dei Fossili di Bolca; *Anatomical*: HL – head length; PU – preural vertebra; SL – standard length; U – ural vertebra.

Systematic description

Order PERCIFORMES
Perciformes *incertae sedis*

Genus *Quasinectes* gen.nov.

Diagnosis
Body relatively deep, its length 2¼ times greater than its depth. Head length less than body depth. Eye relatively small; orbit diameter not exceeding snout length. Mouth moderate, terminal. Ascending premaxillary process relatively long. Jaw teeth small and conical. Lower jaw articulation at a level anterior to middle of orbit. Opercular region moderately wide. Vertebrae 24 (10 + 14); parapophyses poorly developed. Pleural ribs short and slender. Hypurals unfused; three epurals. Three supraneurals. Dorsal fin single, long-based; soft portion more than twice longer than spinous portion; a very slight notch present between spinous and soft portions. Dorsal fin with eight strong spines (3rd to 5th longest) and up to 30 soft rays. Anal fin with three strong graduated spines and at least 25 soft rays. Anal fin with relatively extended base. Four anal pterygiophores precede first haemal spine, and four pterygiophores present in first interhaemal space. Pelvic fins moderately long; situated anterior to pectorals. Caudal fin relatively large and rounded, with 17 principal rays. Scales large; weakly ctenoid.

Type species
Quasinectes durello sp. nov., by monotypy and designation herein.

Composition
Type species only.

Etymology
After quasi (Latin) as if, approximately, and genus Pleuronectes; gender masculine.

Quasinectes durello sp. nov.
Figures 1 and 2

Diagnosis
As for the genus.

Holotype
MCSNV IG 91152, single plate, ca. 33 mm SL; collected in 1978.

Type Locality and Horizon
North-eastern Italy, Bolca locality, Monte Postale site; late early Eocene, late Ypresian, about 50 Ma (Papazzoni *et al.*, 2014).

Fig. 1 – *Quasinectes durello* gen. et sp. nov., holotype MCSNV IG 91152, 33 mm SL; uppermost Lower Eocene, Monte Bolca locality in northern Italy, Monte Postale. Scale bar: 1 cm

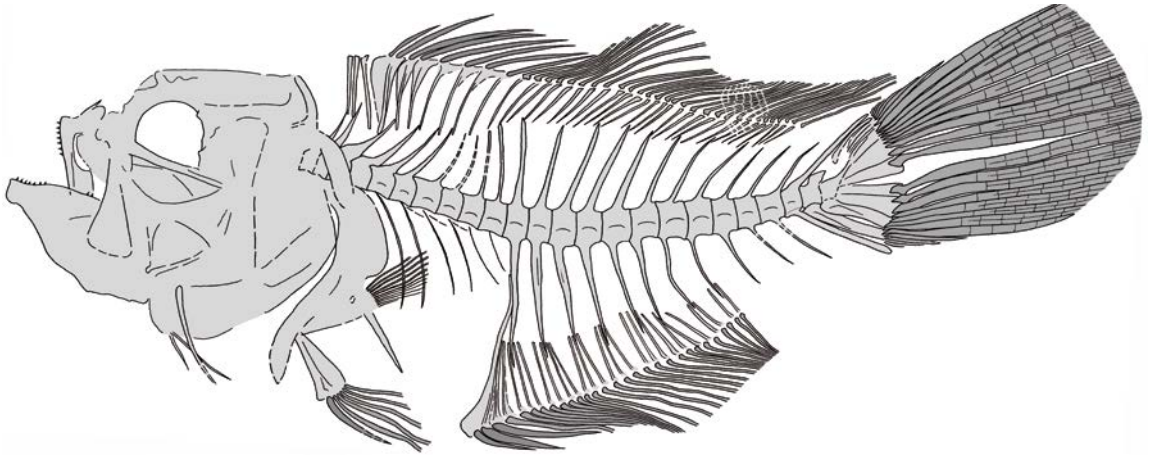

Fig. 2 – *Quasinectes durello* gen. et sp. nov., reconstruction of the skeleton based on the holotype MCSNV IG 91152; scales omitted

Referred specimens
None.

Etymology
The species epithet refers to the *fine wine "Durello" produced in the Alpone valley (Lessini mountains)*.

Description
In the holotype (Fig. 1) the head is somewhat turned up in relation to the rest of the body. The position of the head is improved in our reconstruction of the skeleton (Fig. 2) and compensated for in our measurements. Perhaps the concave backbone curvature of the specimen somewhat distorts proportions of

the body. The body is relatively deep and ovoid, evidently compressed laterally, with a short and deep caudal peduncle. The caudal peduncle depth is 2.6 times less than the maximum body depth. The head is moderately large, its length (tip of snout to posterior edge of opercular region) is 1¼ times smaller than the maximum body depth. The head length is 0.35 of SL. The ventral profile of the body seems to be more convex than the dorsal profile of the body (if it is not a taphonomic distortion).

Head. The head is relatively deep, with its depth almost equal to its length. The orbit is rather small and placed above the middle of the head depth. The orbit diameter almost equals the snout length. The neurocranium is relatively deep; it is poorly preserved, with the limits of its bones scarcely distinguishable. The bony substance of the top of the cranium is partly missing, making it impossible to unambiguously determine whether any cranial asymmetry is present. The supraoccipital crest seems to be poorly developed. The sphenotic–pterotic ridge is traceable in the holotype. The ethmoid region is short. The parasphenoid is relatively strong and almost straight; it is exposed along the lower border of the orbit. None of the infraorbital bones are preserved. The mouth is moderate and terminal; the lower jaw articulation is situated at a level anterior to the middle of the orbit. The premaxillary ascending process is relatively long and distinct from the massive articular process. A postmaxillary process is well developed. The upper jaw teeth are conical and probably uniserial. The maxilla is large and expanded distally. A supramaxilla is not evident. The mandible is relatively large but shallow at the symphysis; its length is about 60-61% of HL. The limits of the mandibular bones are scarcely distinguishable. The lower jaw dentition is similar to that of the upper jaw, with conical and probably uniserial teeth. The hyomandibular shaft is oriented close to the vertical. The limits of most of the pterygoid bones are scarcely distinguishable; however, it is evident that the endopterygoid (mesopterygoid) is flat and extended, being situated just below the parasphenoid. The moderate metapterygoid is traceable between the endopterygoid and quadrate. The quadrate is moderately wide and triangular. The limits of the individual bones of the opercular region are poorly recognizable, but the preopercle seems to be moderately curved and relatively narrow; no serrations are evident in its border. The opercle is flat and rather broad, without evident spines. The hyoid bar bones are highly incompletely preserved, and the total complement of branchiostegal rays is unknown; the few visible rays are sabre-like. The pharyngeal dentition is unknown.

Axial skeleton. There are 24 vertebrae, 10 abdominal and 14 caudal. The axis of the vertebral column is concave and elevated anteriorly (perhaps it is an indication of post-mortem tetany; see Marramà *et al.*, 2016). The vertebral centra are somewhat shortened anteroposteriorly; there are indications of a longitudinal ridge on their lateral surface. The length of the caudal portion of the vertebral column is 1.85 times greater than the length of the abdominal portion of the vertebral column. Most of the neural and haemal spines are relatively stout and slightly curved. None of the interneural spaces below the dorsal fin seems to be vacant. The neural spines of the first to fourth caudal vertebrae are longest. The neural spines of the posteriormost abdominal and anteriormost caudal vertebrae are relatively vertically oriented, whereas all the other neural spines are inclined posteriorly; the middle and posterior abdominal vertebrae seem to have somewhat anteriorly curved neural spines. The haemal spines of the anteriormost caudal vertebrae are relatively vertically oriented, whereas all the other haemal spines are inclined progressively posteriorly. The haemal spines of the anterior and middle caudal vertebrae are longer than the corresponding neural spines. The parapophyses are poorly developed. The pleural ribs are short and slender; these are moderately inclined posteriorly, thus occupying less than the upper half of the abdominal cavity. Short and slender epineurals are evident below the vertebral centra in the abdominal portion of the vertebral column.

Pectoral fin and girdle. The posttemporal consists of the subvertically oriented and flat main body and an anterior process in its lower portion. The supracleithrum is moderately large and elongate, connecting the posttemporal to the cleithrum. The cleithrum is large and elongate, moderately curved, and C-shaped; it has a flat posterodorsal projection above the pectoral fin. The ventral postcleithrum is strong and rather long, directed ventrally and somewhat posteriorly (in the holotype the right and left postcleithra are broadly distant from each other distally). The coracoid is relatively small. The scapula and pectoral radials are not clearly recognizable. The pectoral fin is relatively short and narrow, containing at least 11 rays. The pectoral-fin base is situated close to the midpoint between the vertebral column and the ventral profile of the body, below the fifth vertebra.

Pelvic fin and girdle. The pelvic bones are wedge-shaped and oriented posteroventrally under the strong angle to the body axis. The pelvic fin seems to be somewhat longer than the pectoral; it has a strong spine and five soft rays. The pelvic-fin spine is similar in length to the second anal-fin spine. The pelvic fin is inserted just anterior to the pectoral-fin base; it does not reach the origin of the anal fin.

Supraneurals and dorsal fin. There are three straight and narrow supraneurals (predorsal bones) of increasing length posteriorly; these are not posteriorly inclined. The first supraneural approaches the tip of the neural spine of the first vertebra, whereas the second and third supraneurals are situated in the first and second interneural spaces, respectively.

The dorsal fin is long-based and continuous, with a weak indentation between the spiny and soft parts. The origin of the dorsal fin is at a level above the centrum of the fourth vertebra. The spiny portion of the dorsal fin consists of eight relatively strong smooth spines; the first spine is shortest, at least twice shorter than the longest (third to fifth) spines. The fifth to eighth dorsal-fin spines gradually shorten, with the last spine being 1.4 times shorter than the longest dorsal-fin spine. The length of the longest spine is equal to the length of the base of the spiny dorsal fin. The first two spines are in non-serial secondary association (supernumerary) with the first dorsal-fin pterygiophore, which precedes the neural spine of the third vertebra. The soft dorsal fin does not form a lobe anteriorly. The soft rays are segmented and branched. There are 29 soft dorsal-fin rays; the longest rays are approximately equal to the longest dorsal-fin spines. The length of the soft portion of the dorsal fin is 2.2 times longer than the length of the spiny portion. The first dorsal-fin pterygiophore penetrates down into the second interneural space, being almost vertically oriented; it is expanded medially and bears a longitudinal strengthening ridge but lacks a tapered projection directed anteriorly from the upper anterior part. A few of the anterior pterygiophores are almost vertically oriented, and the succeeding pterygiophores become increasingly inclined posteriorly and gradually shorter. The pterygiophores of the dorsal fin penetrate slightly down into the interneural spaces, with all of the interneural spaces below the spiny dorsal fin having the ventral shaft of a single pterygiophore present, except for the third interneural space, which accommodates two pterygiophores. The interneural spaces below the soft dorsal fin have the ventral shafts of one to four pterygiophores present. The medial pterygiophores seem to be fused with the proximal pterygiophores.

Anal fin. The anal fin originates under the level of the centrum of the last abdominal vertebra. There are three strong smooth spines and 26 soft rays. The first two spines are supernumerary on the first anal-fin pterygiophore. The first spine is slender and shortest, 1.7 times shorter than the third spine, which is the longest. The length of the second spine is 77% of the length of the third spine. The anal-fin soft rays are both segmented and branched. The longest anal-fin ray is only slightly shorter than the longest soft dorsal-fin ray. Four anal-fin pterygiophores insert anterior to the first haemal spine. The first anal-fin pterygiophore is somewhat curved, very long and stout distally; its proximal portion is attached along the anterior edge of the middle portion of the first haemal spine. The first anal-fin pterygiophore is somewhat anteriorly oriented. The second and succeeding anal-fin pterygiophores are much shorter and decrease in length posteriorly in the series. The first interhaemal space accommodates the proximal shafts of four anal-fin pterygiophores, whereas more posteriorly the dorsal ends of two to four (usually three) pterygiophores enter into the interhaemal spaces above the anal fin. The second and succeeding anal-fin pterygiophore shafts become increasingly inclined posteriorly in the series.

Caudal fin and skeleton. The caudal skeleton is of the generalized percoid type, with the fusion of PU1, U1, and U2 in the terminal centrum. The neural spine of PU2 forms a relatively low crest. All five hypurals, the parhypural, and the haemal spine of PU2 are autogenous. There are three epurals, with the first being longest. The condition of the uroneurals is unclear. The neural and haemal spines of PU3 are evidently stronger than those of the preceding vertebra. The caudal fin has 17 principal rays, with 15 branched (I,8-7,I). There are about seven procurrent rays above and five rays below; the presence of the procurrent spur (Johnson, 1975, 1984; Johnson and Patterson, 1993) is uncertain. The caudal fin is relatively long and rounded.

Squamation. Large and relatively thick scales are dispersed on and around the skeleton. The scales are feebly ctenoid and rounded to ovoid. There are circular striations and usually six to eight radiating basal grooves in the scales. The lateral line is not distinguishable.

Measurements of the holotype, in percent of SL (ca. 33 mm), produced from the reconstruction to eliminate the distortion related to the lifting up of the head in relation to the rest of body, are as follows:

- Head length from tip of snout to posterior border of opercle: 35
- Maximum body depth: 44.5
- Depth of caudal peduncle: 17
- Distance between tip of snout and first dorsal-fin spine: 40
- Distance between tip of snout and first dorsal-fin soft ray: 55
- Distance between tip of snout and anal fin: 60
- Distance between pelvic fin and anal fin: 21
- Length of base of spiny dorsal fin: 15
- Length of base of soft dorsal fin: 33.5
- Length of base of anal fin: 35
- Length of first spine of dorsal fin: 7
- Length of longest spines of dorsal fin: 15
- Length of last spine of dorsal fin: 11
- Length of longest soft ray of dorsal fin: 15
- Length of first spine of anal fin: 7.5
- Length of second spine of anal fin: 10
- Length of third spine of anal fin: 13
- Length of longest soft ray of anal fin: 13
- Length of spine of pelvic fin: ca. 9.5
- Length of longest soft ray of pelvic fin: 13
- Length of longest ray of caudal fin: 31
- Preorbital distance: 9
- Horizontal diameter of orbit: 8
- Length of lower jaw: ca. 21.5

Genus *Latellopsis* gen.nov.

Diagnosis
Body deep and compressed, with short caudal peduncle; its length 1.4 times greater than its depth. Head length 1.8 times less than body depth. Eye relatively small; orbit diameter about equal to snout length. Mouth terminal. Jaw teeth small and conical. Lower jaw articulation at a level under middle of orbit. Opercular region moderately wide. Vertebrae 25 (10 + 15); at least four posterior abdominal vertebrae with parapophyses. Pleural ribs short and slender. Hypurals unfused. Three supraneurals. Dorsal fin single, not notched, long-based; soft portion 3.5 times longer than spinous portion. Dorsal fin with six robust spines of increasing length posteriorly and 39 soft rays. Anal fin long-based, with three strong graduated spines and up to 33 soft rays. Five anal pterygiophores precede first haemal spine, and three pterygiophores enter in first interhaemal space. Pelvic fins moderately long, situated just anterior to pectorals. Caudal fin moderate and rounded, with 17 principal rays.

Type species
Latellopsis latellai (Bannikov, 2005), comb. nov., by monotypy and designation herein.

Composition
Type species from Monte Bolca (Pesciara) only.

Etymology
The genus is named in honor of Dr. Leonardo Latella, an entomologist at the MCSNV and editor of its scientific publications; gender masculine.

Discussion

No features of *Quasinectes* gen. nov. contradict its inclusion in the percomorph order Perciformes (sensu Nelson, 2006). We prefer for the moment to follow traditional systematics (e.g., Nelson, 2006), because more modern (mostly molecular) systematics (e.g., Wiley and Johnson, 2010; Near *et al.*, 2012; Betancur-R. *et al.*, 2013; Nelson *et al.*, 2016; etc.) are not stabilized yet and sometimes conflict with each other.

The new genus superficially resembles flatfishes of the order Pleuronectiformes in its ovoid body with a deep caudal peduncle and the rounded caudal fin, insertion of the several anal-fin pterygiophores anterior to the first haemal spine, and the anteriorly curved neural spines of some of the abdominal vertebrae. Chapleau (1993) identified three synapomorphies of living flatfishes, two of which are osteological: migration of one eye during ontogeny, resulting in profound cranial asymmetry; and an anterior insertion of dorsal fin that overlaps the neurocranium. Friedman (2008, 2012) added more characters supporting flatfish monophyly, including: absence of supraneurals; absence of well-developed membranous extensions on the shafts of most dorsal- and anal-fin proximal-middle radials; haemal arch and spine of the third preural vertebra fused to the centrum; a full neural spine on the second preural centrum; two or fewer epurals. None of the characters listed above can be confidently recognized in the holotype of *Quasinectes durello* gen. et sp. nov., although perhaps partly because of its inadequate preservation. The latter factor excludes

the possibility of determining the presence of initial cranial asymmetry and the fusion of the haemal spine of the third preural vertebra to the centrum. In any case, the presence of three supraneurals and the dorsal fin subdivided into spiny and soft portions and not inserted above the neurocranium confidently differentiate the new taxon from the Pleuronectiformes.

Friedman (2008, 2012) regarded two Bolca taxa, *Amphistium paradoxum* Agassiz, 1844 and *Heteronectes chaneti* Friedman, 2008 as stem flatfishes with incomplete orbital migration. The morphology of *Amphistium paradoxum* was studied in details (Blot, 1969; Chanet, 1999), but only Friedman (2008), using conventional techniques and computed tomography, has unequivocally shown for the first time that *Amphistium* is characterized by conspicuous cranial asymmetry centered in the orbital region. *Quasinectes durello* gen. et sp. nov. is easily differentiated from *Amphistium* by having three supraneurals (vs. a single supraneural in *Amphistium*), dorsal fin with separated spinous and soft parts (vs. spinous and soft parts of dorsal fin not separated in *Amphistium*), dorsal- and anal-fin soft rays more densely arranged (vs. more widely spaced in *Amphistium*).

Heteronectes chaneti is known based on a single incomplete specimen (with severely displaced dorsal fin) (Friedman, 2008; 2012) prepared using the acid-transfer method (Toombs and Rixon, 1959). As with *Amphistium*, it has a strongly asymmetrical head, with the left orbit encroaching on the dorsal midline. Apart from this, *Heteronectes* displays a series of generalized percomorph characters that are lost or transformed in other pleuronectiforms. Therefore, although Friedman (2008, 2012) regarded *Heteronectes* as a stem flatfish which "occupies an exceptionally deep position on the pleuronectiform stem" (Friedman, 2012: 750), it is reasonable to accommodate this genus among the percomorphs outside of the order Pleuronectiformes. Paleontological data suggest that in the Eocene, when the earliest true pleuronectiforms already existed (*Eobothus* and some other genera: Chanet, 1997, 1999), some percomorphs also exhibited certain cranial asymmetry in parallel to flatfishes. In addition to *Heteronectes* (and perhaps *Amphistium* whose attribution to the pleuronectiforms is not unequivocal; see Chanet, 1999), there is also the discovery in the basal Eocene of the North Caucasus of an as yet undescribed deep-bodied percomorph with a somewhat asymmetrical cranium. Based on molecular evidence, some researchers have concluded that asymmetry arose independently in *Psettodes* and pleuronectoids (Campbell *et al.*, 2013) (although most other molecular systematics support flatfish monophyly: Harrington *et al.*, 2016, etc.)

Apart from cranial asymmetry, the presence of which cannot be unequivocally stated for *Quasinectes durello* gen. et sp. nov., of its characters available for comparison the new genus exhibits strong similarity to *Heteronectes* from the same Monte Postale site. These two genera share such characters as: 24 vertebrae (10 abdominal and 14 caudal); short and slender pleural ribs; robust spines in the dorsal and anal fins accompanied with numerous soft rays; first four anal-fin pterygiophores insert anterior to the first haemal spine; relatively large and rounded caudal fin with 17 principal rays; caudal skeleton of the generalized percoid type; and relatively large ctenoid scales. At the same time, *Quasinectes durello* gen. et sp. nov. does not exhibit the strong parapophyses and serrated preopercle, features characteristic of *Heteronectes* (perhaps because of inadequate preservation). Also, *Quasinectes durello* has fewer anal-fin soft rays (25 vs. 31 in *Heteronectes*) (precise dorsal-fin count of *Heteronectes* unknown) and a strong postmaxillary process. Such a process is not known in *Heteronectes* (Friedman, 2012), but this region of the premaxilla is covered by the maxilla in the holotype of *Heteronectes* (Friedman, 2012: Fig. 3).

The discovery of *Quasinectes* gen nov. leads us to reassess the systematic position of the Bolca fish described previously as *Psettopsis latellai* (Bannikov, 2005). Although visual inspection of the holotype of this species (Fig. 3) indicates a similar general appearance and body proportions to the specimens of *P. subarcuatus* (de Blainville, 1818) of comparable size (Fig. 4), there are a number of strong differences in the morphology of these taxa. *Psettopsis latellai* differs from *P. subarcuatus* in having: much greater number of soft rays in the dorsal and anal fins (respectively 39 vs. 30 and 32 or 33 vs. 25 in *P. subarcuatus*); one supernumerary dorsal-fin spine (vs. two spines in *P. subarcuatus*); 25 vertebrae (10+15) [vs. 24 vertebrae (10+14) in *P. subarcuatus*] [the reconstruction of the skeleton of *P. subarcuatus* made by Blot (1969: pl. I) erroneously shows 25 vertebrae (11+14) in this species]; five anal-fin pterygiophores preceding the haemal spine of the first caudal vertebra (vs. only two pterygiophores in *P. subarcuatus*). Bannikov (2005) supposed that the differences between *P. subarcuatus* and *P. latellai* probably were significant enough to recognize these

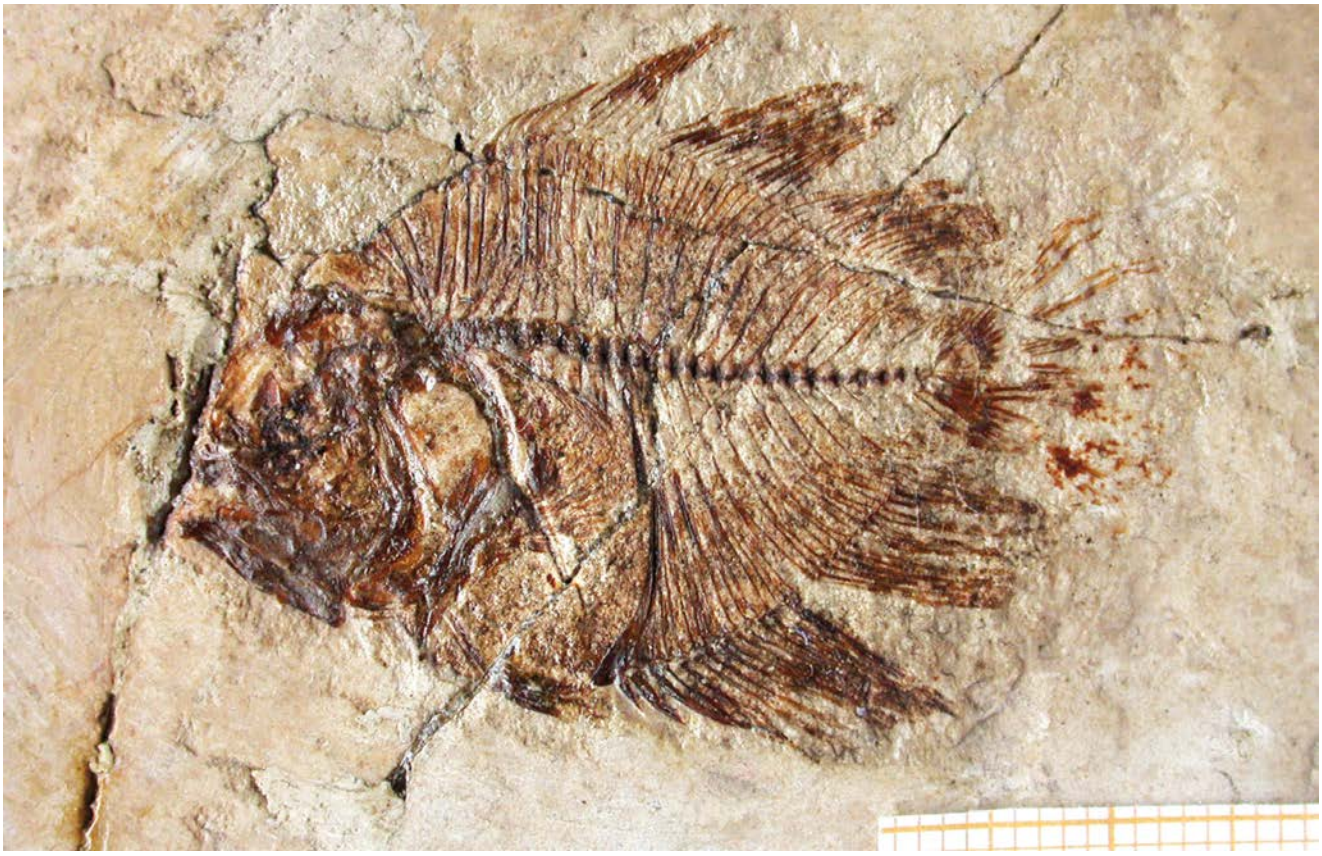

Fig. 3 – *Latellopsis latellai* (Bannikov, 2005), holotype MCSNV B.65-12, 33 mm SL; uppermost Lower Eocene, Monte Bolca locality in northern Italy, Pesciara. Scale division: 1 mm

species at the generic level. However, he refrained from recognizing a new genus for *P. latellai* until a better preserved specimen of this species becomes available.

The skull of the holotype of *P. latellai* is very poorly preserved (Fig. 3), making it impossible to unambiguously determine whether any cranial asymmetry is present, although one cannot exclude the possibility of the presence of initial cranial asymmetry. However, apart from the cranial asymmetry (the presence of which cannot be unequivocally stated for *P. latellai*), in the characters available for comparison *P. latellai* exhibits at least as equally strong similarity to the pleuronectiform flatfishes as do both *Quasinectes* gen. nov. and *Heteronectes*. *Psettopsis latellai* is characterized by a discoid body with a deep caudal peduncle, long-based dorsal and anal fins, rounded caudal fin, well-developed parapophyses, weak ribs, insertion of five anal-fin pterygiophores anterior to the first haemal spine, and anteriorly curved slender neural spines of posterior abdominal vertebrae. Therefore, we remove herein *Psettopsis latellai* from the genus *Psettopsis* and establish for it the new genus *Latellopsis* of incertae sedis percomorphs.

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Fig. 4 – *Psettopsis subarcuatus* (de Blainville, 1818): **A** – MFB IG 129669, 25.5 mm SL; **B** – MCSNV IG 126426, 25 mm SL; uppermost Lower Eocene, Monte Bolca locality in northern Italy, Pesciara. Scale bar: 1 cm

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