The Fossil Record of Conodonts in Greece

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1 Introduction

Conodonts (Conodonta Eichenberg, 1930) refer to small marine organisms of an extinct group of fossil animals that lived from the Palaeozoic to early Mesozoic eras (e.g., Spasov and Ganev 1960). Conodonts were introduced and described for the first time by Pander in 1856. His discovery of these microfossil findings of Paleozoic strata of Baltic provinces and Moscow environs was phosphatic teeth-like parts (calcium phosphate or apatitic conodont "elements") and initiated a vigorous debate regarding their biology and affinity for more than 130 years. Hence, along these years, a great number of papers dealt with their morphology, anatomy, distribution, and taxonomy (e.g., Huckriede 1958; Lindström 1964; Kozur 1975; Müller 1981; Murdock et al. 2013). Moreover, conodonts are one of the most important and widespread—though quite enigmatic as it will be explained below—microfossils, which have an excellent fossil record from the Cambrian to Triassic; thus they own biozones (e.g., Walliser 1964; Ziegler and Sandberg 1990).

The conodont fossil record from Greece includes 90 genera, 348 species and 74 subspecies from 80 localities/sections (e.g., Bender et al. 1960; Vrielynck 1978a; Kozur and Krahl 1984; Appendix). The oldest record comes from the Silurian to Carboniferous of Chios Island (e.g., Kauffmann 1965; Herget and Roth 1968) and from the Carboniferous of Attica (Caridroit et al. 2000). The rest of the localities correspond to the Triassic Period (e.g., Flament 1973; Muttoni et al. 2014).

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E. Vlachos (ed.), *Fossil Vertebrates of Greece Vol. 1*,
https://doi.org/10.1007/978-3-030-68398-6_3

2 Historical Overview

In 1856, Christian Heinrich Pander (one of the founders of embryology and paleontology in Russia) in his monograph introduced and described conodonts for the first time. Pander regarded these tiny specimens (minute teeth-like remains composed of pure calcium carbonate)—from which he derived the concept of "Conodonten"—as the teeth and/or jaws of an unknown group of fossil fishes. However, he reported that the structure of those teeth showed several and strong differentiations in icthyological character from all known fish, which led him to the impression that these fossils were not fish teeth. Pander also noted the lack of bone findings, indicating that conodonts did not have hard parts; thus he suggested that the fossils could be related to hagfish or lampreys. Because of this, Pander used a conservative way to describe these specimens: each species was interpreted to have teeth of a single morphology. Consequently, the systematic taxonomy of his monograph concluded the establishment of 13 genera with 55 newly named species. Later, Ulrich and Bassler (1926) of the US National Museum accepted the idea of Pander's conodonts and proposed a more extensive classification model of the group. They described many new species from Devonian and Mississippian rocks in the southeastern United States and were the first to recognize their biostratigraphic usefulness. In the early 1930s, conodonts became the main interest and paleontologic curiosities for paleontologists around the world. Among them, Branson and Mehl (1934a, b) and their students (at the University of Missouri) studied the Middle Ordovician to Lower Carboniferous of eastern and central United States under an extensive program of conodont research and produced a considerably expanded taxonomy and knowledge of their nature. Interest in conodonts grew dramatically, and the number of paleontologists interested in this enigmatic group increased greatly, due primarily to the establishment of this major research program. In 1934, Schmidt and Scott discovered groups of individual elements preserved together in the same black shale bedding plain. This important discovery led to the hypothesis that the individual elements were held in pairs (termed an apparatus) when in life, often likened to mouthparts. From the 1960s onward, conodonts have developed into one of the most important biostratigraphic tools available for the study of Palaeozoic and Triassic sequences.

3 Conodont Classification and the Great Fossil Enigma

Based on Pander's doubts about the uncertain origin of conodonts, many scenarios were suggested for their phylogenetic position. The unsolved puzzle of the true nature of conodonts remains, until nowadays, the main subject for more than a hundred papers that deal with a plethora of hypotheses on the function of the conodont and their affinity, or the identity of the organism that bore them.

Isolated conodonts are widespread and abundant. Until the 1980s, their biological affinities were still not known. Conodonts have been variously interpreted as the remains of plants (algae, vascular plants), conulariids, aschelminthes (copulatory structures of nematodes, priapulids, teeth of rotifers, gastrotrichs, kinorhynchs), and gnathostomulids; as molluscan radulae of various kinds, annelid jaws, and arthropod organs (but not since the last century); and as elements of lophophorates, chaetognaths, and chordates such as agnathans (including cyclostomes), selachians, ostracoderms, placoderms, and various kinds of primitive vertebrates (Hass 1962; Müller 1981). In the 1980s, many paleontologists (e.g., Clark 1981; Briggs et al. 1983; Gould 1983) placed conodonts in a separated phylum, Conodonta, because the morphological features of specimens do not resolve the question of conodont function and origin. According to Tillier and Cuif (1986), conodonts were invertebrates that resemble to aplacophoran molluscs, but this speculation was turned down by Briggs et al. (1987), a few years later. Janvier (1981) supported the hypotheses of Tillier and Cuif (1986) only to revise his original thoughts a few years later (e.g., Janvier 1995). Nonetheless, the great controversy lied in the phylogenetic relationship of conodonts with two other groups: chaetognaths and chordates. The chaetognaths that have only recently been the object of detailed investigation (Repetski and Szaniawski 1981; Szaniawski 1982) are small marine worms, dorsoventrally flattened, with horizontal fins, grasping spines, while they are mostly planktic (Hyman 1959). Rietschel (1973) noted the similarity between conodonts and the grasping spines of chaetognaths, suggesting that conodonts might have functioned in the same way.

As regards possibility of a vertebrate, chordate affinity for the conodonts has received more attention than any other (e.g., Schmidt in Schmidt and Müller 1964; Müller 1981). Sansom et al. (1992) and subsequent papers supported that conodont hard tissues are homologous to vertebrate tissues, since the discoveries of two findings of nearly complete animals. These results and the current knowledge of the anatomy of conodonts derived from two enlightening fossil findings, based on the form and the features of the soft-tissue remains. The first refers to a well-preserved new specimen from the Upper Ordovician Soom Shale of South Africa. This giant conodont *Promissum pulchrum* reveals details of the trunk musculature, feeding apparatus, and eyes. The preserved length is 109 mm but in its entire length reaches approximately 400 mm (Gabbott et al. 1995). The second particularly important discovery by Briggs et al. in 1983 comes from the Lower Carboniferous Granton Shrimp Bed of Edinburgh and was the species *Clydagnathus windsorensis*. This specimen refers to a wormlike, elongate (40.5 mm long and mostly less than 1.95 mm wide) organism that was most likely flattened in life. The preserved region of the head includes the conodont apparatus and the anterior one-third of the trunk. In the tail region, the presence of two distinct groups of fin rays on one side of the trunk suggests that two caudal fins may have been present (Briggs et al. 1983). Several specimens have been recovered from the same area, representing more or less complete conodont organisms, while the careful study and description of them came by Aldridge et al. (1986, 1993) and Aldridge (1987).

Although Aldridge et al. (1986) and Aldridge (1987) concluded that conodonts are related to myxinoids because of the laterally compressed body, large eyes, bilaterally feeding apparatus, myomeres, notochord, and a tail fin, there are still controversies about their phylogenetic position within the vertebrates. The presence of a notochord is a plesiomorphic chordate character shared with the protochordates (Urochordata and Cephalochordata) and the craniates, whereas the chevron-shaped muscle blocks are normally regarded as limited to the cephalochordates and craniates (e.g., Maisey 1986). Several authors related conodonts to craniates (e.g., Janvier 1983; Dzik 1986; Smith and Hall 1990). Janvier (1996) was the first who conducted computer-based parsimony analysis resulting in the affinity of conodonts with vertebrate groups, as a sister group of the lampreys. Later, Donoghue et al. (2000) reapplied a phylogenetic analysis where conodonts were placed between cyclostomes and other vertebrates, more derived than both hagfishes and lampreys, due to their calcified dermal skeleton. The position of conodonts as extinct chordates, more derived than living jawless vertebrates, but basal to those with jaws, has been established by cladistic analysis and has been summarized by Sweet and Donoghue (2001).

4 Distribution

The fossil record of conodonts is a well-studied subject in Greece already from the early 1960s. The study areas referred to localities across different regions of the central, south, as well as islands of the Hellenic territory (Fig. 1), where Paleozoic to lower Mesozoic (Triassic) sequences occur. From Central Greece, nine localities have been studied, including Pyli Trikala, Mt. East Koziakas, Mt. Othrys, Mt. Iti (Latsinies), Mt. Vardoussia, Kotsilieri, Galaxidi (Koutsouros–Kokkinovrakhos), Psilovrakhos–Karpenisi–Fragista, and Nafpaktos. Conodonts have been recorded also from Beotia (Mt. Helicon), Evia (Xirovouni–Seta), and Attica (Mt. Parnis). Three main areas of Peloponnesus were studied, Achaia (Priolithos–Drimos and Klitoria), Messinia (Mathia–Achladochori and Mt. Ithome), and Argolis (Asklepieion of Epidaurus, Theokafta, Adhami, Alogomandra, Maurovouni–Prosimi–Stefanion, Profitis Ilias, Moni Taxiarchis–Tsoukalia, Trapezona, Midhea, Karafotia–Trahla, Iliokastro–Kastro Hill). Concerning the islands, Hydra has been the subject of study of many researchers in numerous outcrops (Zogeika, Agios Nikolaos Monastery, Agia Triada, Mandraki–Hydra Chora, Malies, Klimaki, Pirghos, Agios Taxiarchis, Kaminia, Vlichos, Mt. Eros, Palamidas, Agia Marina, Episkopi, Tsigkri, Bisti, and also the adjacent small Kivotos, Petassi, and Pontikos Islands). Furthermore, one of the most studied areas in Greece is Chios Island, with more than 20 investigated localities (Kambia, Keramos, Kourounia–Nenitouria, Melanios–Agio Galas, Parparia, Potamia, Amani, Kipouries, Volisos, Katavasi, Kardamyla, Metochi–Megali Rachi, Anavatos, Vrontados, Rema Armenis, Latomi, Agios Markos, Kephalovouni, Marathovouno, Marmarotrapeza, Agia Anna,

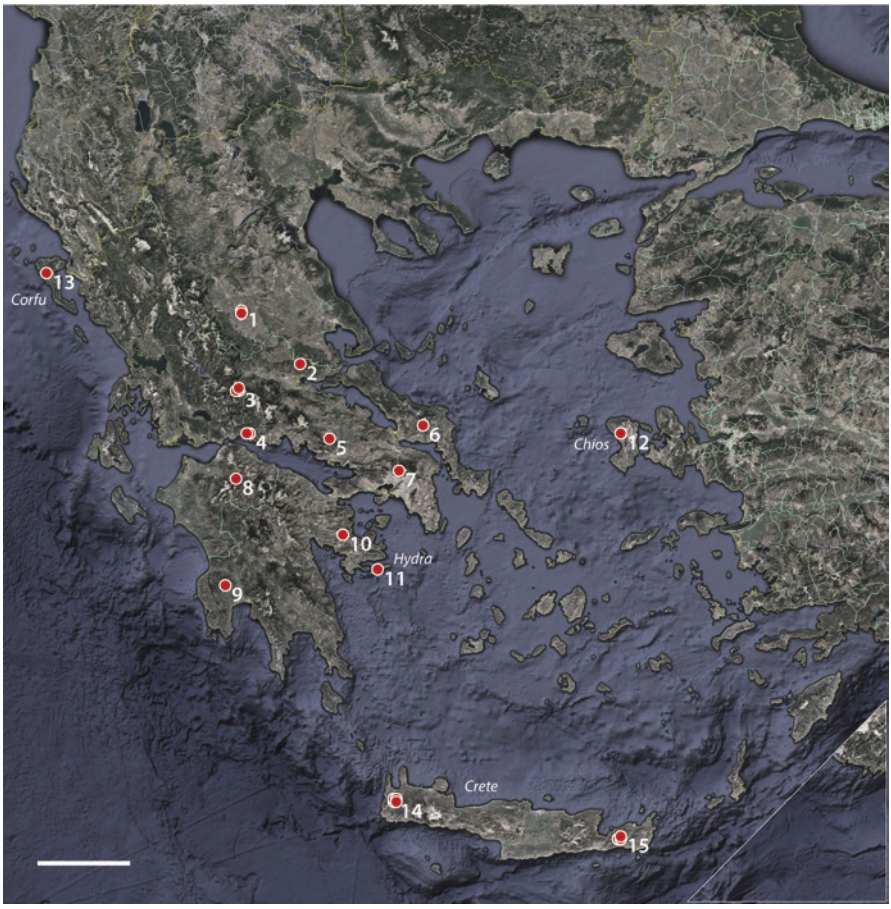

Fig. 1 Map with all the localities, where conodonts have been described: Central Greece: **1**, Pyli Trikala, Mt. Koziakas; **2**, Mt. Othrys; **3**, Mt. Iti, Mt. Vardoussia, Kotsilieri, Psilovrakhos–Karpenisi–Fragista; **4**, Galaxidi, Nafpaktos; **5**, Beotia; **6**, Evia; **7**, Attica. Peloponnesus: **8**, Achaia; **9**, Messinia; **10**, Argolis; **11**, Hydra Island; **12**, Chios Island; **13**, Corfu Island. Crete Island: **14**, Voutas, Sfinari, Kambos, Paleochora, Skafi; **15**, Myrsini, Skopi, Tripokefala, Ziros. See Appendix for more information. Image exported from Google Earth Pro © 2019, map data from US Dept. of State Geographer, SIO, NOAA, U.S. Navy, NGA, GEBCO, image from Landsat/Copernicus. Scale bar equals 80 km, North faces upward

Parthenis, Korakaris, and Agios Georgios Sykousis). Only one species is reported from Corfu Island (Foustapidima Cape), while western and east Crete Island has been investigated as well (Voutas, Sfinari, Kambos, Paleochora, Skafi, Myrsini, Skopi, Tripokefala, Ziros). Further details on all localities are provided in the Appendix.

5 Systematic Paleontology

Phylum Chordata Bateson, 1886
Subphylum Vertebrata Linnaeus, 1758
Class Conodonta Eichenberg, 1930

Remarks 348 species and 74 subspecies belonging to 90 conodont genera have been reported from Greece (Fig. 2). For space reasons, the list is given at generic

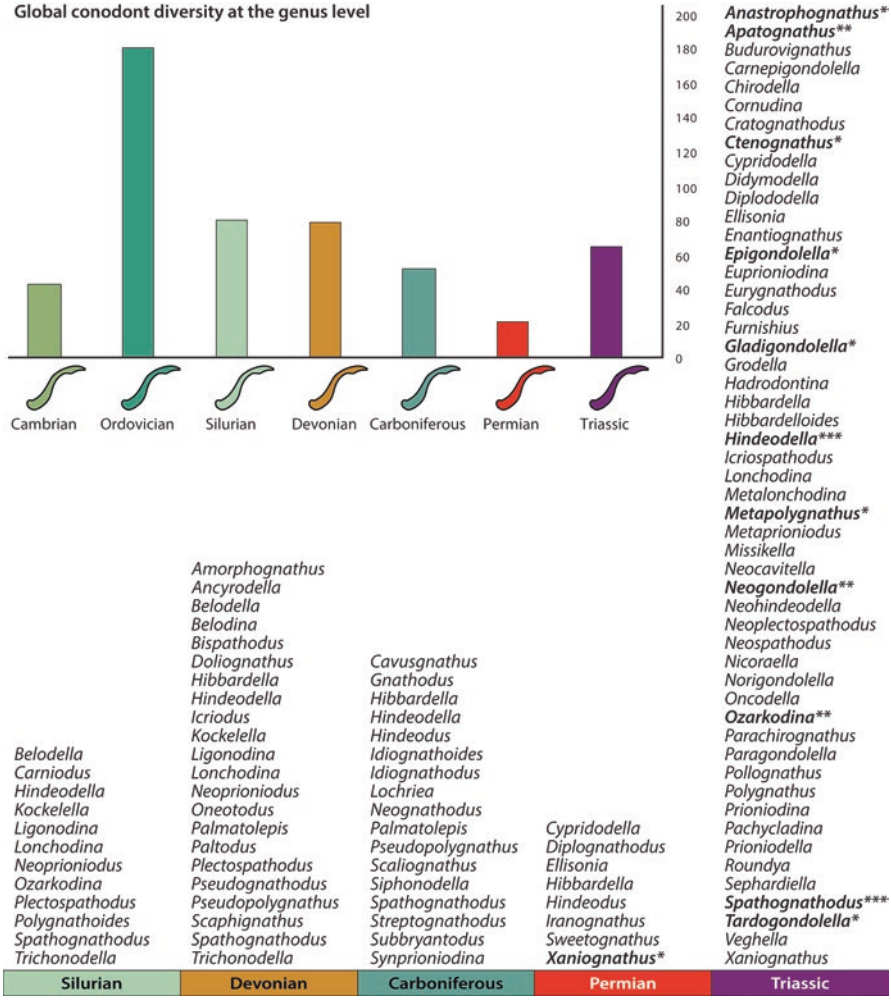

Fig. 2 The temporal distribution of conodont genera in Greece, compared to the global diversity (Data from the Paleobiology Database, accessed June 22, 2020). Genera marked with boldface contain species whose type localities are in Greece; the number of asterisks indicates the number of new taxa from Greece. Conodont silhouettes from phylopic.org and attributed to J. Headen

level and in alphabetical order. Identified species are given without authorships in the main text, with additional information for the taxa described from Greece; full authorships and their references are given in the Appendix.

Amorphognathus Branson and Mehl, 1933

Type Species *Amorphognathus ordovicica* Branson and Mehl, 1933.

Identified Species in Greece *Amorphognathus* sp.

Distribution In the Hellenic material, *Amorphognathus* sp. has been found only in the Upper Devonian of Kipouries and Volisos (Chios Island) by Herget and Roth (1968) and Roth (1968).

★*Anastrophognathus* Bender, 1968b

Type Species ★*Anastrophognathus sagittalis* Bender, 1968b.

Identified Species in Greece ★*Anastrophognathus sagittalis.*

Distribution *Anastrophognathus sagittalis* that has been described for the first time from Greece presents a wide distribution in the Hellenic peninsula, as it has been found in the late Anisian of Central Greece (Psilovrakhos; Kauffmann in Fleury 1980), the Lower to Middle Triassic of Argolis Peloponnesus (Asklipieion Epidaurus; Vrielync 1978a, b, 1980), Hydra Island (Agios Nikolaos Monastery; Dürkoop et al. 1986), Chios Island (Marathovouno; Bender 1968a, b; Tietze 1969), and Crete Island (Tripokefala and Voutas; Krahl et al. 1983, 1986).

Remarks The genus *Anastrophognathus* has been described for the first time from the Hellenic material by Bender in 1968b, with the type species *Anastrophognathus sagittalis* from the lower Anisian limestones of Marathovouno of Chios Island.

Ancoradella Walliser, 1964

Type Species *Ancoradella ploeckensis* Walliser, 1964.

Identified Species in Greece *Ancoradella ploeckensis.*

Distribution Concerning the Greek material, *Ancoradella ploeckensis* has been described only from the Silurian of Kardamyla (Chios Island) (Kauffmann 1965).

Ancyrodella Ulrich and Bassler, 1926

Type Species *Ancyrodella nodosa* Ulrich and Bassler, 1926.

Identified Species in Greece *Ancyrodella* sp.

Distribution In the Hellenic deposits, *Ancyrodella* has been found only in the Upper Devonian of Melanios–Agio Galas, Parparia, and Kipouries in Chios Island (Herget and Roth 1968; Roth 1968).

Apatognathus Branson and Mehl, 1934a

Type Species *Apatognathus varians* Branson and Mehl, 1934a.

Identified Species in Greece ★*Apatognathus mitzopouli*, ★*Apatognathus radiatus*, *Apatognathus ziegleri*, *Apatognathus* sp.

Distribution Representatives of this genus have been described for the first time in Greece and are distributed in the Olenekian to early Anisian of Marathovouno of Chios Island (Bender 1968b), with two species (*A. mitzopouli* and *A. radiatus*), whereas all *Apatognathus* species have been reported from other localities in Chios island as well (Parthenis, Agia Anna, Kephalovouni, Agios Markos, Rema Armenis, and Anavatos) (Bender 1968a, b; Tietze 1969; Tietze in Jacobshagen and Tietze 1974). *A. mitzopouli* has been also found in the late Anisian to Norian of Mt. Vardoussia (Ardaens 1978), while *A. ziegleri* is more widespread and has been found in the Carnian of Theokafta (Argolis) (Bender et al. 1960; Bender 1968b), the Ladinian of Asklipieion (Argolis) and the late Anisian to Carnian of Mandraki–Hydra Chora and Petassi Island (Hydra) (Huckriede 1958; Römermann 1968).

Remarks The species *Apatognathus mitzopouli* and *Apatognathus radiatus* have been identified for the first time from the Olenekian to late Anisian of Marathovouno (Chios Island), by Bender (1968b).

Belodella Ethington, 1959

Type Species *Belodus devonicus* Stauffer, 1940.

Identified Species in Greece *Belodella triangularis*, *Belodella* sp.

Distribution In the Greek material, *Belodella triangularis* has been found only in the Upper Devonian to Carboniferous of Kipouries while *Belodella* cf. *triangularis* in the Middle Devonian of Parthenis and *Belodella* sp. in the Silurian to Devonian of Agia Anna (Chios Island) (Roth 1968; Walisser in Tietze 1969).

Belodina Ethington, 1959

Type Species *Belodus compressus* Branson and Mehl, 1933.

Identified Species in Greece *Belodina triangularis.*

Distribution In the Greek material, *Belodina triangularis* has been reported only from the Devonian of Potamia and Kipouries in Chios Island (Herget and Roth 1968; Roth 1968).

Bispathodus Müller, 1962

Type Species *Spathodus spinulicostatus* Branson, 1934.

Identified Species in Greece *Bispathodus stabilis.*

Distribution Representatives of *Bispathodus stabilis* in the Hellenic material have been found only in the late Famennian (Upper Devonian) of Kardamyla (Chios Island) (Larghi et al. 2005).

Budurovignathus Kozur, 1989

Type Species *Polygnathus mungoensis* Diebel, 1956.

Identified Species in Greece *Budurovignathus hungaricus*, *Budurovignathus mungoensis.*

Distribution The two representatives of the genus *Budurovignathus* have been reported in the Hellenic peninsula, from the late Anisian to early Ladinian of Agia Triada of Hydra Island by Muttoni et al. (1994, 1997).

Carnepigondolella Kozur, 2003

Type Species *Metapolygnathus zoae* Orchard, 1991.

Identified Species in Greece *Carnepigondolella gulloae*, *Carnepigondolella nodosa.*

Distribution The two representatives of the genus of *Carnepigondolella* have been found in the Carnian of Agia Marina (Hydra Island) (Muttoni et al. 2014), while *C. nodosa* has been also reported from the late Carnian to early Norian of Stefanion (Argolis) (Noyan and Kozur 2007).

Carniodus Walliser, 1964

Type Species *Carniodus carnulus* Walliser, 1964.

Identified Species in Greece *Carniodus carinthiacus*, *Carniodus* cf. *carnulus*.

Distribution The two representatives of the genus *Carniodus* have been described from the Hellenic territory, in the Silurian of Kardamyla (Chios Island) by Kauffmann in 1965.

***Cavusgnathus* Harris and Hollingsworth, 1933**

Type Species *Cavusgnathus alta* Harris and Hollingsworth, 1933.

Identified Species in Greece *Cavusgnathus* sp.

Distribution The genus of *Cavusgnathus* in Greece has been described only from the late Carboniferous of Sfinari (West Crete Island) (Krahl et al. 1983).

***Chirodella* Hirschmann, 1959**

Type Species *Chirodella triquetra* (Tatge, 1956).

Identified Species in Greece *Chirodella dinodoides*, *Chirodella gracilis.*

Distribution *C. dinodoides* has a wide distribution in the Hellenic material characterizing the Middle to Late Triassic of Central Greece in Kotsilieri, Galaxidi, and Mt. Vardoussia, along with *C. gracilis* (Ardaens 1978), Nafpaktos and Psilovrakhos–Karpenisi–Fragista (Vrielynck in Fleury 1980), and Mt. Iti in Latsinies (Wigniole 1977), while it has also been reported from Mt. Helicon (Beotia) (Steuber 1991), Peloponnesus Achaia (Drimos) (Flament 1973), and Argolis (Asklipieion Epidaurus, Mavrovouni–Prosimi, Trapezona, Karafotia–Trahla, Profitis Ilias) (Vrielynck 1978a, 1980).

***Cornudina* Hirschmann, 1959**

Type Species *Ozarkodina breviramulis* Tatge, 1956.

Identified Species in Greece *Cornudina breviramulis*, *Cornudina breviramulis minor*, *Cornudina tortilis*, *Cornudina oezdemirae*, *Cornudina* sp.

Distribution *C. breviramulis minor* has been found in Carnian–Norian of Midhea and Karafotia–Trahla and Mavrovouni–Prosimi (Argolis) (Vrielynck 1978a, 1980), while in the Anisian–Ladinian of Mt. Helicon (Beotia) (Steuber 1991) *C. breviramulis* and *C. torilis* have been reported. Furthermore, *C. torilis* has also been found in the Anisian to Ladinian of Asklipieion (Argolis) (Vrielynck 1978a, b), while Ardaens (1978) has described *C. tortilis* from the Anisian to Norian of Mt. Vardoussia and *C. breviramulis* and *C. oezdemirae* from Galaxidi.

***Cratognathodus* Mosher, 1968**

Type Species *Prioniodina kochi* Huckriede, 1958.

Identified Species in Greece *Cratognathodus kochi*, *Cratognathodus posterognathus angulatus*, *Cratognathodus posterognathus posterognathus.*

Distribution The subspecies *C. posterognathus angulatus* and *C. posterognathus posterognathus* have been found in the Anisian to Ladinian of Mt. Helicon (Beotia) (Steuber 1991). Moreover, *C. posterognathus* and *C. kochi* have been described from the Triassic of the Adhami (Argolis) (Dürkoop et al. 1986), Karpenisi–Fragista, Mt. Vardoussia (Central Greece; Ardaens 1978; Vrielynck in Fleury 1980), and Priolithos–Drimos (Flament 1973). Additionally, *C. kochi* has been found in several late Anisian to early Ladinian localities of Hydra Island (Zogeika, Agios Nikolaos Monastery, Malies, Tsigkri, Bisti, Agia Triada, Petassi Island) and in some cases along with *C. posterognathus* (Dürkoop et al. 1986; Angiolini et al. 1992; Muttoni et al. 1994).

Ctenognathus Pander, 1856

Type Species *Ctenognathus murchisoni* Pander, 1856.

Identified Species in Greece ★*Ctenognathus chionensis.*

Distribution *C. chionensis* has been described from Greece and in the Hellenic material has been found only in the Olenekian limestones of Marathovouno in Chios Island by Bender in 1968b.

Cypridodella Mosher, 1968

Type Species *Cypridodella conflexa* Mosher, 1968.

Identified Species in Greece *Cypridodella conflexa*, *Cypridodella delicatula*, *Cypridodella mediocris*, *Cypridodella muelleri*, *Cypridodella* sp.

Distribution The representatives of the genus *Cypridodella* refer to the Carnian to Norian of Drimos (Achaia Peloponnesus) (Flament 1973), although Krahl et al. (1986) have reported *Cypridodella* sp. from the early to middle Permian of Myrsini, East Crete Island.

Didymodella Mosher, 1969

Type Species *Dichodella alternata* (Mosher, 1968).

Identified Species in Greece *Didymodella alternata*, *Didymodella* sp.

Distribution *D. alternata* presents wide distribution in the Hellenic material, as it has been described from the Anisian to Ladinian of Mt. Helicon (Steuber 1991) and the Anisian to Ladinian of Asklipieion Epidaurus and Adhami (Argolis) (Dürkoop et al. 1986; Vrielynck 1978a, 1980). Also, Ardaens (1978) has reported *Didymodella* cf. *alternata* and *Didymodella* sp. from the late Anisian to Norian of Mt. Vardoussia.

Diplododella **Ulrich and Bassler, 1926**

Type Species *Diplododella bilateralis* Ulrich and Bassler, 1926.

Identified Species in Greece *Diplododella bidentata*, *Diplododella magnidentata*, *Diplododella meissneri*, *Diplododella triassica*, *Diplododella thuringensis.*

Distribution The widely distributed species *Diplododella bidentata* has been found in the Middle to Late Triassic of Mt. Helicon (Beotia) by Steuber (1991), and Kotsilieri by Ardaens in 1978, while he has also described *D. meissneri* and *D. thuringensis* from Mt. Vardoussia. Furthermore, *D. bidentata* has been reported from the late Carnian to early Norian of Priolithos (Peloponnesus) along with *D. magnidentata* by Flament (1973), from the late Anisian to Ladinian of Asklipieion Epidaurus and Adhami (Argolis) by Dürkoop et al. (1986), and from the Carnian to Norian of Karafotia–Trahla along with *D. meissneri* (Vrielynck 1978a, 1980). Finally, Krahl et al. (1986) have found it in the Olenekian to Anisian of Skopi (East Crete Island).

Diplognathodus **Kozur and Merrill, 1975**

Type Species *Spathognathodus coloradoensis* Murray and Chronic, 1965.

Identified Species in Greece *Diplognathodus* sp.

Distribution Concerning the Greek material, *Diplognathodus* sp. has been identified only from the early to middle Permian of Myrsini (East Crete) by Krahl et al. (1986).

Doliognathus **Branson and Mehl, 1941**

Type Species *Doliognathus tata* Branson and Mehl, 1941.

Identified Species in Greece *Doliognathus* sp.

Distribution Herget and Roth (1968) have described the genus of *Doliognathus* in the Hellenic peninsula only from the Upper Devonian deposits of Kambia (Chios).

Ellisonia **Müller, 1956**

Type Species *Ellisonia triassica* Müller, 1956.

Identified Species in Greece *Ellisonia* sp.

Distribution Although the genus *Ellisonia* has been identified only as *Ellisonia* sp., it has been found in several localities and detected age of the deposits of two islands, as the Wuchiapingian of Agios Taxiarchis (Hydra Island; Nestell and Wardlaw 1987) and the Lower Triassic of Kambos and Paleochora, the Induan of

Myrsini, and the Olenekian to Anisian of Skopi and Tripokefala of Crete Island by Krahl et al. (1983).

Enantiognathus Mosher and Clark, 1965

Type Species *Apatognathus inversus* Sannemann, 1955.

Identified Species in Greece *Enantiognathus bitortus*, *Enantiognathus mitzopouli*, *Enantiognathus petrae-viridis*, *Enantiognathus ziegleri.*

Distribution Dürkoop et al. (1986) reported the four representatives of the genus *Enantiognathus* from the Anisian to Ladinian of Adhami (Argolis). Furthermore, *E. bitortus* has been also described from the Olenekian to Anisian of the Skopi, Tripokefala (West Crete Island) (Krahl et al. 1986). *E. ziegleri* has been reported from Asklipieion Epidaurus, Karafotia–Trahla (Argolis) (Vrielynck 1978a, 1980), and the Carnian to Norian of Priolithos–Drimos (Achaia) (Flament 1973) in Peloponnesus, whereas it has been found in the Late Triassic of several localities in Central Greece (Ardaens 1978; Vrielynck in Fleury 1980). It has been also reported from the late Anisian to Ladinian of Agia Triada, Agia Marina, Pirghos, and Episkopi of Hydra Island (Muttoni et al. 1994; Angiolini et al. 1992) and the Olenekian to Anisian of Chios Island (Katavasi and Metochi–Megali Rachi, Roth 1968; Anavatos, Rema Armenis, Agia Anna, Parthenis and Korakaris, Tietze 1969). *E. petrae-viridis* has also a quite wide distribution as it has been found in Asklipieion Epidaurus (Argolis) by Vrielynck (1978a, 1980), the Ladinian of Voutas (Crete Island) (Kozur and Krahl 1984), and the Anisian to Norian of Central Greece (Mt. Vardoussia and Galaxidi, Ardaens 1978; Karpenisi–Fragista, Vrielynck in Fleury 1980), while *Enantiognathus* sp. has been only described from Myrsini East Crete Island (Krahl et al. 1986).

Epigondolella Mosher, 1968

Type Species *Polygnathus abneptis* Huckriede, 1958.

Identified Species in Greece *Epigondolella abneptis*, *Epigondolella bidentata*, *Epigondolella diebeli*, *Epigondolella echinata*, *Epigondolella hungarica*, *Epigondolella multidentata*, *Epigondolella mungoensis*, *Epigondolella nodosa*, *Epigondolella permica*, *Epigondolella postera*, *Epigondolella primitia*, *Epigondolella pseudodiebeli*, *Epigondolella quadrata*, ★*Epigondolella rigoi*, ★*Epigondolella stefanionensis*, *Epigondolella ziegleri*, *Epigondolella* sp.

Distribution The genus of *Epigondolella* is one of the most common genera, with 17 species, found in the Hellenic material, including two of them described from Greece. They refer mainly in the Argolis area: Upper Triassic of Stefanion (Noyan and Kozur 2007; Vrielynck 1978a, 1980), Asklipieion Epidaurus (Krystyn and Mariolakos 1975; Vrielynck 1978a, b, 1980), Moni Taxiarchis–Tsoukalia (Baumgartner 1985), Trapezona, Karafotia–Trahla, and Midhea (Vrielynck 1978a,

b, 1980), whereas it has also been described from Priolithos–Drimos and Klitoria of Achaia Peloponnesus (Flament 1973; Vrielynck in Fleury 1980). The second important area is Central Greece with seven species reported from the late Triassic of Nafpaktos and Psilovrakhos–Karpenisi–Fragista (Vrielynck in Fleury 1980), Mt. Iti (Wigniole 1977), and Mt. Vardoussia, Kotsilieri, and Galaxidi (Ardaens 1978). They have been also described from Pyli Trikala (Lekkas 1986), Mt. Othrys (Ferriere 1974), and East Mt. Koziakas (Ardaens 1978), while it has been also reported from Agia Marina of Hydra Island (Muttoni et al. 2014).

Remarks Two species, *Epigondolella rigoi* and *Epigondolella stefanionensis*, have been described and named from Argolis Peloponnesus by Noyan and Kozur in 2007. The type locality of *Epigondolella rigoi* Kozur, 2007, is a cherty limestone in Stefanion section, and it corresponds to upper *E. rigoi* zone. *Epigondolella stefanionensis* Noyan 2007 has been identified in a section, consisting of a platy cherty limestone, NE of Stefanion, south of Mt. Rakhi Stefaniou, and it corresponds to the upper part of the late Carnian.

***Euprioniodina* Ulrich and Bassler, 1926**

Type Species *Euprioniodina deflecta* Ulrich and Bassler, 1926.

Identified Species in Greece *Euprioniodina mediocris*, *Euprioniodina muelleri*, *Euprioniodina multihamata*, *Euprioniodina pectiniformis*, *Euprioniodina petraeviridis*, *Euprioniodina pronoides.*

Distribution Dürkoop et al. (1986) have been the only ones who have described the genus of *Euprioniodina* in the Greek peninsula. They reported six species from the late Anisian to Ladinian of Adhami of Argolis area in Peloponnesus.

***Eurygnathodus* Staesche,** 1964

Type Species *Eurygnathodus costatus* Staesche, 1964.

Identified Species in Greece *Eurygnathodus costatus*, *Eurygnathodus paracostatus.*

Distribution Krahl et al. (1986) have found the two species of the genus *Eurygnathodus* in the Greek material in the Olenekian of Myrsini (East Crete Island), while Tietze (1969) reported *E. costatus* from the Olenekian to Ladinian of Anavatos of Chios Island.

***Falcodus* Huddle, 1934**

Type Species *Falcodus angulus* Huddle, 1934.

Identified Species in Greece ?*Falcodus* sp.

Distribution Bender et al. (1960) have described the species ?*Falcodus* sp. only from the Carnian of Theokafta (Argolis), in the Hellenic peninsula.

Furnishius Clark, 1959

Type Species *Furnishius trisseratus* Clark, 1959.

Identified Species in Greece *Furnishius triserratus.*

Distribution *Furnishius triserratus* has been described in the Greek deposits only from the Lower Triassic of Kambos of West Crete Island (Krahl et al. 1983).

Gladigondolella Müller, 1962

Type Species *Gladigondolella tethydis* (Huckriede, 1958).

Identified Species in Greece ★*Gladigondolella carinata*, *Gladigondolella malayensis budurovi*, *Gladigondolella malayensis malayensis*, *Gladigondolella tethydis*, *Gladigondolella triangularis*, *Gladigondolella* sp.

Distribution The genus *Gladigondolella* has been found in the Hellenic material with five species and three subspecies, including *G. carinata* described for the first time from the lower Anisian limestones of Marathovouno of Chios Island by Bender in 1968b. They refer to five main areas. In the area of Argolis Peloponnesus, three species (*G. carinata, G. malayensis*, and *G. tethydis*) have been reported from the Middle to Upper Triassic of the Theokafta, Profitis Ilias, and Asklipieion Epidaurus (Bender 1968b; Krystyn and Mariolakos 1975; Vrielynck 1978a, 1980; Baumgartner 1985; Dürkoop et al. 1986). In Crete Island the same *Gladigondolella* species are described in Skopi, Sfinari, Voutas, and Tripokefala (Krahl et al. 1983, 1986; Kozur and Krahl 1984). Four species (*G. carinata*, *G. malayensis budurovi*, *G. tethydis*, *G. triangularis*) have also been found in the Early to Middle Triassic of Katavasi, Metochi–Megali Rachi, Anavatos, Rema Armenis, Kephalovouni, Marathovouno, Parthenis Korakaris, and Marmarotrapeza of Chios Island (Roth 1968; Tietze 1969; Bender 1968b; Assereto et al. 1980; Tietze in Jacobshagen and Tietze 1974; Gaetani et al. 1992; Jacobshagen et al. 1993). From Hydra Island, two species (*G. malayensis malayensis* and *Gladigondolella* sp.), have been reported from the Anisian to Carnian of Agia Marina (Muttoni et al. 1994, 2014); and *G. tethydis* from Episkopi (along with *G. carinata*) and Agia Triada Agios Nikolaos Monastery, Malies, Pirghos, Vlichos, Eros, Tsigkri, Bisti, and Petassi Island (Römermann 1968; Dürkoop et al. 1986; Angiolini et al. 1992; Muttoni et al. 1994). Kauffmann in Fleury (1980), Steuber (1991), and Ardaens (1978) have found *G. tethydis* in the Olenekian to Norian of Psilovrakhos and the Anisian to Ladinian of Mt. Helicon, Mt. Vardoussia, and Galaxidi (Central Greece), while De Bono et al. (2001) described *G. tethydis* and *G. malayensis* in the Carnian of Evia.

Gnathodus Pander, 1856

Type Species *Gnathodus mosquensis* Pander, 1856.

Identified Species in Greece *Gnathodus angustus*, *Gnathodus bilineatus bilineatus*, *Gnathodus commutatus commutatus*, *Gnathodus commutatus homopunctatus*, *Gnathodus commutatus nodosus*, *Gnathodus cuneiformis*, *Gnathodus delicatus*, *Gnathodus girtyi*, *Gnathodus noduliferus*, *Gnathodus* cf. *opimus*, *Gnathodus praebilineatus*, *Gnathodus punctatus*, *Gnathodus* cf. *roundyi*, *Gnathodus semiglaber*, *Gnathodus* n. sp. aff. *sicilianus*, *Gnathodus texanus*, *Gnathodus wapanuckensis*, *Gnathodus* sp.

Distribution The genus *Gnathodus* has been mainly reported from the Carboniferous of Chios Island and specifically from Keramos, Kourounia–Nenitouria, Melanios–Agio Galas, Parparia, Potamia, Kipouries, Volisos, and Agios Georgios Sykousis with 13 species and 4 subspecies (Herget and Roth 1968; Roth 1968; Tietze 1969; Groves et al. 2003; Zanchi et al. 2003). Furthermore, Krahl et al. (1983) have described one species, *G. angustus*, in the late Carboniferous of Sfinari (West Crete Island).

Gondolella Stauffer and Plummer, 1932

Type Species *Gondolella elegantula* Stauffer and Plummer, 1932.

Identified Species in Greece *Gondolella aegaea*, *Gondolella arcuata*, *Gondolella asiatica*, *Gondolella bakalovi*, *Gondolella basisymmetrica*, *Gondolella b. bifurcata*, *Gondolella b. hanbulogi*, *Gondolella bulgarica*, *Gondolella constricta*, *Gondolella cornuta*, *Gondolella denuda*, *Gondolella eotrammeri*, *Gondolella excelsa*, *Gondolella excentrica*, *Gondolella f. foliata*, *Gondolella f. inclinata*, *Gondolella f. pseudobifurcata*, *Gondolella f. fueloepi*, *Gondolella gujioensis*, *Gondolella idahoensis*, *Gondolella intermedia*, *Gondolella jubata*, *Gondolella laevis*, *Gondolella liebermani*, *Gondolella mombergensis*, *Gondolella navicula*, *Gondolella navicula hallstattensis*, *Gondolella nepalensis*, *Gondolella orientalis*, *Gondolella planata*, *Gondolella polygnathiformis*, *Gondolella regale*, *Gondolella subcarinata*, *Gondolella* aff. *szaboi*, *Gondolella tadpole*, *Gondolella tethydis*, *Gondolella timorensis*, *Gondolella trammeri*, *Gondolella* sp. ex aff. *Gondolella auriformis*, *Gondolella* sp.

Distribution The genus *Gondolella* has been described with many species and subspecies from several localities of the Greek peninsula. The most complete section from Upper Carboniferous to Upper Triassic, referred to Crete Island and specifically in Sfinari and Voutas (West Crete) but also in Myrsini, Tripokefala, and Skopi (East Crete) (Krahl et al. 1983, 1986; Kozur and Krahl 1984). Most of the species were catalogued from several localities of Hydra Island (Muttoni et al. 1994, 1997; Angiolini et al. 1992; Dürkoop et al. 1986; Huckriede 1958; Bender and Kockel 1963). Argolis is the third important area where several species were found

in the Triassic sediments of Asklipieion Epidaurus, Adhami, Iliokastro/Kastro Hill, Alogomandra, and Theokafta (Mauvier in Decourt 1964; Baumgartner 1985; Dürkoop et al. 1986; Krystyn and Mariolakos 1975; Bender et al. 1960; Huckriede 1958), while they have been found also in the Middle to Late Triassic of Messinia in Mathia–Achladochori and Mt. Ithome (Kozur in Thiebault 1982; Terry 1969). Representatives of this genus have also been reported from the Anisian to Ladinian of Mt. Helicon of Beotia (Steuber 1991; Clement 1977); the Olenekian to late Anisian of Mt. Parnis in Attica (Bender and Kockel 1963), Marathovouno, and Marmarotrapeza of Chios Island (Muttoni et al. 1995; Bender and Kockel 1963; Gaetani et al. 1992; Jacobshagen et al. 1993); and the Anisian to Norian of Mt. Othrys, Mt. Vardoussia, and Galaxidi (Ferriere 1974; Ardaens 1978) of Central Greece.

Grodella Kozur and Mostler, 1970

Type Species *Grodella delicatula* (Mosher, 1968).

Identified Species in Greece *Grodella delicatula.*

Remarks In the Hellenic material, only the species *Grodella delicatula* has been found in the Anisian to Norian of Profitis Ilias (Peloponnesus) (Vrielynck 1978a).

Hadrodontina Staesche, 1964

Type Species *Hadrodontina anceps* Staesche, 1964.

Identified Species in Greece *Hadrodontina anceps*, *Hadrodontina* sp.

Distribution Krahl et al. (1983) have found the species *Hadrodontina anceps* in the Greek material only in the Lower Triassic of Voutas (West Crete Island), while Tietze (1969) reported *Hadrodontina* sp. from the Induan to Ladinian of Marathovouno and the Carboniferous of Agios Georgios Sykousis of Chios Island.

Hibbardella Ulrich and Bassler, 1926

Type Species *Prioniodus angulatus* Hinde, 1879.

Identified Species in Greece *Hibbardella lautissima*, *Hibbardella magnidentata*, *Hibbardella* cf. *nevadensis*, *Hibbardella triassica*, *Hibbardella zapfei*, *Hibbardella* sp.

Distribution In the Hellenic peninsula, the genus *Hibbardella* presents six representatives. *H. lautissima* has been reported from the Anisian to Ladinian of Mt. Helicon in Beotia (Steuber 1991) and from Adhami of Argolis area (Dürkoop et al. 1986). The most common species found is *H. magnidentata* which has been reported from the Middle to Late Triassic of Mt. Helicon of Beotia (Steuber 1991), from

Karafotia–Trahla and Stefanion of Argolis area (Vrielynck 1978a, 1980), and finally from Nafpaktos (Vrielynck in Fleury 1980). Bender (1968b) and Tietze (1969) have reported *H. triassica* from Marathovouno and Parthenis of Chios Island and *Hibardella* sp. from Metochi–Megali Rachi and Rema Armenis, the Middle Devonian of Parthenis, and the Carboniferous of Agios Georgios Sykousis (Roth 1968; Tietze 1969). Finally, Flament (1973) has found *H. zapfei* only in the Carnian to Norian of Drimos of Achaia Peloponnesus.

Hibbardelloides Kozur and Mostler, 1970

Type Species *Hibbardelloides acroforme* (Mosher and Clark 1965).

Identified Species in Greece *Hibbardelloides acroforme.*

Distribution Steuber, in 1991, catalogued in the Greek material *H. acroforme* from the Anisian to Ladinian of Mt. Helicon in Beotia.

Hindeodella Ulrich and Bassler, 1926

Subgenus *Hindeodella* (*Metaprioniodus*) Huddle, 1934

Type Species *Hindeodella subtilis* Ulrich and Bassler, 1926.

Identified Species in Greece *Hindeodella andrusovi*, ★*Hindeodella bitorta*, *Hindeodella bogschi*, ★*Hindeodella ceweki*, *Hindeodella equidentata*, *Hindeodella (Metaprioniodus) andrusovi*, *Hindeodella* (*Metaprioniodus*) *andrusovi andrusovi*, *Hindeodella* (*Metaprioniodus*) *andrusovi koeveskalensis*, *Hindeodella* (*Metaprioniodus*) *bicuspidata*, *Hindeodella* (*Metaprioniodus*) *koeveskalensis*, *Hindeodella* (*Metaprioniodus*) *multihamata*, *Hindeodella* (*Metaprioniodus*) *pectiniformis*, *Hindeodella* (*Metaprioniodus*) *spengleri*, *Hindeodella* (*Metaprioniodus*) *suevica*, *Hindeodella multihamata*, *Hindeodella pectiniformis*, *Hindeodella petraeviridis*, *Hindeodella priscilla*, *Hindeodella raridenticulata*, *Hindeodella spengleri sapanlii*, *Hindeodella spengleri spengleri*, ★*Hindeodella stoppeli*, *Hindeodella suevica*, *Hindeodella triassica*, *Hindeodella triassica triassica*, *Hindeodella uniforma*, *Hindeodella* sp.

Distribution The genus *Hindeodella* has been described from the Greek peninsula from several localities, including three new species. Their record started with the description of *H. equidentata*, *H. priscilla*, and *Hindeodella* sp. from the Silurian to Upper Devonian to lower Carboniferous of several localities of Chios Island (Kauffmann 1965; Herget and Roth 1968; Roth 1968) and the Permian/Triassic boundary of Episkopi Hydra Island (Römermann 1968), continued with *H. bitorta*, *H. triassica* Metochi–Megali Rachi (Roth 1968), the Lower to Middle Triassic of Chios Island (Bender 1968a, b; Tietze 1969), the Middle Triassic (Anisian to Ladinian) from Mt. Helicon of Beotia (Steuber 1991), and Alogomandra, Asklipieion Epidaurus, and Adhami of Argolis (Bender et al. 1960; Dürkoop et al. 1986;

Huckriede 1958; Vrielynck 1978a, 1980). The Middle to Late Triassic was found in Argolis (Theokafta and Profitis Ilias, Vrielynck 1978a; Mauvier in Decourt 1964; Bender et al. 1960) and in Hydra and Petassi Islands (Römermann 1968; Huckriede 1958) and in Central Greece (Ardaens 1978; Vrielynck in Fleury 1980). Finally, the Late Triassic (Carnian to Norian) has been described from Karpenisi to Fragista and Psilovrakhos (Fleury 1980) and Priolithos, Theokafta, Karafotia–Trahla, and Mavrovouni–Prosimi of Peloponnesus (Bender 1968b; Bender et al. 1960; Flament 1973; Vrielynck 1978a, 1980).

Remarks Three *Hindeodella* species have been identified for the first time from the Lower and Middle Triassic limestones of Marathovouno in Chios Island, by Bender in 1968b. *Hindeodella bitorta* and *Hindeodella ceweki* correspond to the Early Anisian, while *Hindeodella stoppeli* corresponds to the Olenekian.

Hindeodus Rexroad and Furnish, 1964

Type Species *Spathognathodus cristulus* Youngquist and Miller, 1949.

Identified Species in Greece *Hindeodus julfensis*, *Hindeodus minutus*, *Hindeodus typicalis*, *Hindeodus* sp.

Distribution The species of *H. typicalis* and *H. julfensis* have been found in the Lopingian (late Permian) of Hydra Island by Argyriou et al. (2017) and Angiolini et al. (1992) and in Wuchiapingian of Agios Taxiarchis and Episkopi by Nestell and Wardlaw (1987), while *H. minutus* (with *Hindeodus* sp.) has been described from the early to middle Permian of Myrsini (East Crete Island) and Carboniferous of Sfinari and Voutas (West Crete) by Krahl et al. in 1986 and in 1983, respectively.

Icriodus Branson and Mehl, 1938

Type Species *Icriodus expansus* Branson and Mehl, 1938.

Identified Species in Greece *Icriodus alternatus*, *Icriodus symmetricus*, *Icriodus* sp.

Distribution The two representatives of the genus *Icriodus* have been found in the late Devonian of Kambia, while *Icriodus* sp. has been reported in Katavasi, Potamia, and Kipouries of Chios Island (Herget and Roth 1968; Roth 1968).

Icriospathodus Krahl et al., 1983

Type Species *Neospathodus collinsoni* Solien, 1979.

Identified Species in Greece *Icriospathodus collinsoni.*

Distribution Krahl et al. (1983) have found the species of *Icriospathodus collinsoni* only in the Early Triassic of Voutas (West Crete Island).

Idiognathodus Gunnell, 1931

Type Species *Idiognathodus claviformis* Gunnell, 1931.

Identified Species in Greece *Idiognathodus tersus*, *Idiognathodus togashii.*

Distribution Krahl et al. (1983) have reported the two representatives of *Idiognathodus* from the late Carboniferous of Sfinari from West Crete.

Idiognathoides Harris and Hollingsworth, 1933

Type Species *Idiognathoides sinuata* Harris and Hollingsworth, 1933.

Identified Species in Greece *Idiognathoides attenatus*, *Idiognathoides* cf. *convexus*, *Idiognathoides ouachitensis*, *Idiognathoides sinuatus.*

Distribution Krahl et al. (1983) have reported the species of *I. sinuatus* from the late Carboniferous of Sfinari (West Crete Island), while the other representatives of this genus have been found by Tietze (1969) in the Carboniferous of Vrontados and Agios Georgios Sykousis of Chios Island.

Iranognathus Kozur et al., 1975

Type Species *Iranognathus unicostatus* Kozur, Mostler and Rahimi–Yazd, 1975.

Identified Species in Greece *Iranognathus* sp.

Distribution The genus *Iranognathus* has been reported only from the early to middle Permian of Myrsini (East Crete Island) by Krahl et al. (1986).

Kockelella Walliser, 1957

Type Species *Kockelella patula* Walliser, 1964.

Identified Species in Greece *Kockelella patula*, *Kockelella variabilis.*

Distribution The species of *K. patula* has been found in the Devonian of Kipouries and Volisos (Herget and Roth 1968; Roth 1968), while *K. variabilis* has been reported only from the Silurian of Kardamyla of Chios Island (Kauffmann 1965).

Ligonodina Ulrich and Bassler, 1926

Type Species *Ligonodina pectinata* Ulrich and Bassler, 1926.

Identified Species in Greece *Ligonodina salopia*, *Ligonodina silurica*, *Ligonodina* sp.

Distribution Kauffmann (1965) and Herget and Roth (1968) have described the two representatives of the genus *Ligonodina* from the Silurian to Devonian of Kardamyla, Katavasi, and Kipouries, while Tietze (1969) has reported *Ligonodina* sp. from Agia Anna and Agios Georgios Sykousis of Chios Island.

Lochriea Scott, 1942

Type Species *Lochriea montanaensis* (Scott, 1942).

Identified Species in Greece *Lochriea commutata*, *Lochriea mononodosa.*

Distribution The two representative species of the genus *Lochriea* have been described from the late Visean/earlier Serpukhovian of Kourounia–Nenitouria (Groves et al. 2003) and Selino–Amani of Chios Island (Zanchi et al. 2003).

Lonchodina Ulrich and Bassler, 1926

Type Species *Lonchodina typicalis* Ulrich and Bassler, 1926.

Identified Species in Greece *Lonchodina discreta*, *Lonchodina greilingi*, *Lonchodina hungarica*, *Lonchodina latidentata*, *Lonchodina muelleri*, *Lonchodina? posterognathus*, *Lonchodina spengleri*, *Lonchodina venusta*, *Lonchodina walliseri, Lonchodina* sp.

Distribution In the Hellenic material, ten species have been catalogued from the genus *Lonchodina*. In Chios Island *L. greilingi* and *L. walliseri* have been reported from the Silurian to Devonian of Kardamyla, Kipouries, Volisos, Katavasi, Agia Anna Parthenis, and Agios Georgios Sykousis (Kauffmann 1965; Herget and Roth 1968; Roth 1968; Tietze 1969), while *L. spengleri*, *L latidentata*, *L. mulleri*, *L. venusta*, and *L. discrteta* from the Olenekian to Anisian of Katavasi, Metochi–Megali Rachi, Anavatos, Rema Armenis, Latomi, Marmarotapeza Kephalovouni, Agia Anna, Parthenis, Korakaris, and Marathovouno (Bender 1968a, b; Roth 1968; Tietze 1969). Furthermore, in Argolis *L. muelleri*, *L. spengleri*, *L. venusta*, *L. latidentata*, and *L. discreta* have been reported from the Middle to Upper Triassic of Adhami, Alogomandra, Theokafta, and Asklipieion Epidaurus (Bender et al. 1960; Bender 1968b; Huckriede 1958; Mauvier in Decourt 1964). *Lonchodina? posterognathus* and *L. hungarica* have been reported from the late Anisian to Norian of Mt. Vardoussia and Mt. Helicon (Ardaens 1978; Steuber 1991), and finally *Lonchodina* species have been found in the Carnian of Mandraki–Hydra Chora of Hydra Island and Petassi Island (Huckriede 1958; Römermann 1968).

***Metalonchodina* Branson and Mehl, 1941**

Type Species *Metalonchodina bidentata* (Gunnell, 1931).

Identified Species in Greece *Metalonchodina digitiformis.*

Distribution Mauvier in Decourt (1964) has catalogued *M. digitiformis* from the Anisian to Carnian of Theokafta (Argolis) in Peloponnesus.

***Metapolygnathus* Hayasi, 1968**

Type Species *Metapolygnathus communisti* Hayasi, 1968.

Identified Species in Greece *Metapolygnathus abneptis abneptis*, *Metapolygnathus bidentatus*, *Metapolygnathus communisti communisti*, *Metapolygnathus communisti parvus*, *Metapolygnathus echinatus*, *Metapolygnathus hungaricus*, *Metapolygnathus japonicus*, *Metapolygnathus mirautae*, *Metapolygnathus mostleri*, *Metapolygnathus multidentatus*, ★*Metapolygnathus multinodosus*, *Metapolygnathus mungoensis*, *Metapolygnathus nodosus*, *Metapolygnathus parvus*, *Metapolygnathus polyganthiformis*, *Metapolygnathus posterus*, *Metapolygnathus primitius*, *Metapolygnathus pseudodiebeli*, *Metapolygnathus spengleri*, *Metapolygnathus* cf. *tadpole*, *Metapolygnathus zoae*, *Metapolygnathus* sp.

Distribution The genus *Metapolygnathus* has been reported from four different Hellenic areas with 21 species and 3 subspecies. In particular, nine species have been reported from Argolis in Adhami, while Noyan and Kozur (2007) catalogued six species from the upper Carnian to lower Norian of Stefanion Section. *M. polyganthiformis* was a common species found in Karafotia–Trahla, Profitis Ilias, Asklipieion Epidaurus, and Midhea (Vrielynck 1978a, b), in Mathia Achladochori of Messinia Peloponnesus (Kozur in Thiebault 1982), but also in the Anisian to Norian of Nafpaktos, Karpenisi–Fragista, Mt. Vardoussia, and Koutsouros Kokkinovrakhos of Central Greece (Ardaens 1978; Vrielynck in Fleury 1980). *Metapolygnathus* species have been found in the Carnian–Norian of Mandraki–Hydra Chora, Kaminia, Palamidas and Agia Marina, of Hydra and Kivotos Islands (Dürkoop et al. 1986). Finally, three species have been described from Sfinari and Voutas, Crete Island (Krahl et al. 1983; Kozur and Krahl 1984).

Remarks *M. multinodosus* Noyan 2007 has been identified in Argolis in a section northeast of Stefanion, south of Mt. Rakhi Stefaniou (Noyan and Kozur 2007), and it corresponds to the latest Carnian.

***Metaprioniodus* Huddle, 1934**

Type Species *Metaprioniodus biangulatus* Huddle, 1934.

Identified Species in Greece *Metaprioniodus benderi*, *Metaprioniodus* sp.

Distribution The two representatives of *Metaprioniodus* have been found only in the Anisian to Norian of Mt. Vardoussia in Central Greece by Ardaens, in 1978.

Misikella Kozur and Mock, 1974

Type Species *Misikella longidentata* Kozur and Mock, 1974.

Identified Species in Greece *Misikella hernsteini.*

Distribution Vrielynck (1978a, 1980) has reported *M. hernsteini* only from the Ladinian to Norian of Midhea and Mavrovouni–Prosimi in Argolis Peloponnesus.

Neocavitella Sudar and Budurov, 1979

Type Species *Neocavitella cavitata* Sudar and Budurov, 1979.

Identified Species in Greece *Neocavitella tatrica.*

Distribution Muttoni et al. (2014) have catalogued the species of *N. tatrica* from the Ladinian of the Agia Marina (Hydra Island).

Neognathodus Dunn, 1970

Type Species *Polygnathus bassleri* Harris and Hollingsworth, 1933.

Identified Species in Greece *Neognathodus bassleri*, *Neognathodus symmetricus*, *Neognathodus* sp.

Distribution Krahl et al. (1983) have found the three species of the genus *Neognathodus* only in the late Carboniferous of Sfinari (West Crete Island).

Neogondolella Bender and Stoppel, 1965

Type Species *Gondolella mombergensis* Tatge, 1956.

Identified Species in Greece ★*Neogondolella aegaea*, *Neogondolella constricta*, *Neogondolella leveni*, *Neogondolella mombergensis*, *Neogondolella navicula*, *Neogondolella navicula hallstatensis*, *Neogondolella navicula navicula*, *Neogondolella navicula steinbergensis*, *Neogondolella orientalis*, ★*Neogondolella palata*, *Neogondolella polygnathiformis*, *Neogondolella regale*, *Neogondolella tadpole*, *Neogondolella timorensis timorensis*, *Neogondolella* sp.

Distribution In the Hellenic material, *Neogondolella* has been found mainly in Hydra Island with *N. navicula* in the Carnian to Norian of Kaminia and Petassi (Dürkoop et al. 1986; Römermann 1968) and *N. palata* in Kivotos Island (Römermann 1968), while *N. leveni* and *N. orientalis* characterized the Lopingian of Episkopi, Agios Taxiarchis, and Klimaki (Nestell and Wardlaw 1987). Five spe-

cies have been catalogued from the Theokafta, Asklipieion, and Karafotia–Trahla of Argolis (Bender 1968b; Vrielynck 1978a, b, 1980). Furthermore, *N. aegaea* along with *N. mombergensis* has been found in five localities of Chios Island (Bender 1968b; Roth 1968; Besenecker et al. 1968; Tietze 1969; Assereto et al. 1980). Vrielynck in Fleury (1980) described *N. navicula steinbergensis* from the Olenekian to Norian of Psilovrakhos, and Ardaens (1978) has reported five species from the Anisian to Norian of East Mt. Koziakas, Koutsouros–Kokkinovrakhos, and Mt. Vardoussia of Central Greece.

Remarks The genus *Neogondolella* with two species have been described from Greece by Bender in 1968b, although *Neogondolella* as genus has been initially introduced by Bender and Stoppel in 1965. *Neogondolella aegaea* has been identified in the lower Anisian limestones of Marathovouno in Chios Island while *Neogondolella palata* in the early Carnian of Theokafta in Argolis.

Neohindeodella Kozur, 1968

Type Species *Hindeodella triassica* Müller, 1956.

Identified Species in Greece *Neohindeodella* cf. *requiramosa*, *Neohindeodella dropla*, *Neohindeodella summesbergeri praecursor*, *Neohindeodella summesbergeri summesbergeri*, *Neohindeodella triassica*, *Neohindeodella triassica aequidentata*, *Neohindeodella triassica kobayashi*, *Neohindeodella triassica riegeli*, *Neohindeodella triassica triassica*, *Neohindeodella triassica ziegleri*.

Distribution Three species and seven subspecies have been catalogued from the genus *Neohindeodella*, in the Hellenic material. The most common found is the subspecies, *N. triassica triassica*, that characterized the Middle to Late Triassic of Mt. Helicon of Beotia (Steuber 1991), Trapezona, Asklipieion Epidaurus, Midhea, Profitis Ilias, Mavrovouni–Prosimi, and Karafotia–Trahla (along with *N. summesbergeri praecursor*) of Argolis area (Vrieynck 1978a, b, 1980) and the Olenekian to Norian of Psilovrakhos, Mt. Iti, Kotsilieri Central Greece (Wigniolle 1977; Ardaens 1978; Vrielynck in Fleury 1980). The subspecies of *N. triassica riegeli* has been found almost in the same localities as the *N. triassica triassica*, while *N. dropla* has been found in the Middle to Late Triassic of Mt. Helicon (Beotia) (Steuber 1991), Nafpaktos (Vrielynck in Fleury 1980), Mathia–Achladochori of Messinia Peloponnesus (Kozur in Thiebault 1982), Mt. Vardoussia, Mt. Koziakas, and Kokkinovrakhos along with other *Neohindeodella* species (Ardaens 1978). *N. triassica* and *Neohindeodella* sp. have been reported from the Early Triassic of Myrsini, Skopi, and Tripokefala of Crete Island (Krahl et al. 1986), and *N. triassica ziegleri* has been reported in Karpenisi–Fragista (Vrielynck in Fleury 1980).

Neoplectospathodus Kozur and Mostler, 1970

Type Species *Neoplectospathodus muelleri* Kozur and Mostler, 1970.

Identified Species in Greece *Neoplectospathodus muelleri*, *Neoplectospathodus* sp.

Distribution Steuber (1991) reported the species of *N. muelleri* and *Neoplectospathodus* sp. only in the Anisian to Ladinian of Mt. Helicon of Beotia.

Neoprioniodus Rhodes and Müller, 1956

Type Species *Prioniodus conjuctus* Gunnell, 1931.

Identified Species in Greece *Neoprioniodus bicurvatus*, *Neoprioniodus* cf. *bicuspidatus*, *Neoprioniodus excavatus*, *Neoprioniodus latidentatus*, *Neoprioniodus multiformis*, *Neoprioniodus subcarnus*, *Neoprioniodus* sp.

Distribution The species of *N. bicurvatus* has been found only in the late Devonian of Katavasi and Agia Anna (Tietze 1969; Herget and Roth 1968) while the *N. subcarnus* only in the middle Silurian of Kardamyla (Kauffmann 1965). The rest of the species found in the Hellenic material has been reported in Potamia, Kipouries, Volisos, Anavatos, Agios Markos, and Kardamyla of Chios Island (Kauffmann 1965; Herget and Roth 1968; Roth 1968; Tietze 1969).

Neospathodus Mosher, 1968

Type Species *Spathognathodus cristagalli* Huckriede, 1958.

Identified Species in Greece *Neospathodus* cf. *aequiramosa*, *Neospathodus cristagalli*, *Neospathodus dieneri*, *Neospathodus germanicus*, *Neospathodus hernsteini*, *Neospathodus homeri*, *Neospathodus kockeli*, *Neospathodus longiusculus*, *Neospathodus pakistanensis*, *Neospathodus triangularis*, *Neospathodus waageni*, *Neospathodus* sp.

Distribution Almost all the representatives of the genus *Neospathodus* have been reported from the Island of Crete (Krahl et al. 1983, 1986). *N. kockeli* has only been found in the Early to Middle Triassic of Agia Triada, Vlichos, Pirghos, and Agia Marina of Hydra Island (Angiolini et al. 1992; Muttoni et al. 1997) and *N. hernsteini* in the Carnian to Norian of Mt. Iti (Wigniolle 1977), in Drimos and Klitoria of Achaia Peloponnesus (Flament 1973; Vrielynck in Fleury 1980), and in Mt Koziakas (Ardaens 1978). The most common species are *N. homeri* and *N. triangularis* that have been reported from Adhami (Argolis) (Dürkoop et al. 1986), Marathovouno and Marmarotrapeza Chios Island (Assereto et al. 1980; Muttoni et al. 1995; Gaetani et al. 1992; Jacobshagen et al. 1993), and Episkopi Hydra Island (Dürkoop et al. 1986). *Neospathodus* species have been also found in Mt. Vardoussia and Koutsouros–Kokkinovrakhos of Central Greece (Ardaens 1978).

***Nicoraella* Kozur, 1980**

Type Species *Ozarkodina kockeli* Tatge, 1956.

Identified Species in Greece *Nicoraella germanica*, *Nicoraella kockeli.*

Distribution *N. kockeli* has been catalogued in the Olenekian to Anisian of Adhami (Argolis Peloponnesus) while *N. germanica* in the late Anisian of Tsigkri (Hydra Island) by Dürkoop et al. (1986).

***Norigondolella* Kozur, 1990**

Type Species *Paragondolella steinbergensis* Mosher, 1968.

Identified Species in Greece *Norigondolella kozuri*, *Norigondolella navicula*, *Norigondolella steinbergensis*, *Norigondolella* sp.

Distribution All representatives of the genus *Norigondolella* have been catalogued from the early to middle Norian of Agia Marina, Hydra Island (Muttoni et al. 2014).

***Oncodella* Mosher, 1968**

Type Species *Oncodella idiodentica* Mosher, 1968.

Identified Species in Greece *Oncodella pausidentata.*

Distribution Vrielynck (1978a, 1980) has reported *O. pausidentata* from the late Triassic of Mavrovouni–Prosimi (Argolis), while Flament (1973) and Vrielynck in Fleury (1980) in Priolithos–Drimos and Klitoria of Achaia of Peloponnesus.

***Oneotodus* Lindström, 1954**

Type Species *Distacodus simplex* Furnish, 1938.

Identified Species in Greece *Oneotodus* sp.

Distribution Herget and Roth (1968) and Roth (1968) have found the genus *Oneotodus* only in the Devonian of Kipouries and Volisos of Chios Island.

***Ozarkodina* Branson and Mehl, 1933**

Type Species *Ozarkodina typica* Branson and Mehl, 1933

Identified Species in Greece *Ozarkodina crassa*, *Ozarkodina delicatula*, *Ozarkodina denckmanni*, ★*Ozarkodina*? *fisticulata*, *Ozarkodina kockeli*, *Ozarkodina media*, *Ozarkodina saginata*, *Ozarkodina sweeti*, *Ozarkodina tortilis*,

★*Ozarkodina turgida*, *Ozarkodina typica denckmanni*, *Ozarkodina* cf. *ziegleri*, *Ozarkodina ziegleri ziegleri*, *Ozarkodina* sp.

Distribution *Ozarkodina tortilis* has been the most widespread representative of the genus, in the Hellenic peninsula, as it has been reported from Mt. Helicon of Beotia (Steuber 1991), Nafpaktos, Psilovrakhos, Kotsilieri, and Mt. Vardoussia of Central Greece (Flament 1973; Ardaens 1978), Tripokefala of East Crete Island (Krahl et al. 1986), and Drimos and Priolithos of Peloponnesus (Vrielynck in Fleury; Flament 1973). It has also been found in 16 localities of Chios Island, along with other species as *Ozarkodina ? fisticulata* (Bender 1968a, b; Bender and Kockel 1963; Herget and Roth 1968; Roth 1968; Tietze 1969) and seven localities of Argolis (Bender et al. 1960, 1968b; Dürkoop et al. 1986; Vrielynck 1978a, 1980; Mauvier in Decourt 1964; Huckriede 1958), and in Petassi Island of Hydra (Römermann 1968). Furthermore, in Hydra Island *Ozarkodina* species have been reported from the Late Triassic of Mandraki–Hydra Chora (Muttoni et al. 1994; Angiolini et al. 1992; Huckriede 1958). Krahl et al. (1986) described *O. turgida* and *O. sweeti* from the Myrsini, Tripokefala, and Skopi of Crete Island. Earlier, Kauffmann (1965) catalogued four species from the Silurian of Kardamyla of Chios Island.

Remarks Two species of *Ozarkodina* have been identified and described from the Triassic limestones of Marathovouno in Chios Island by Bender in 1968b. *Ozarkodina ? fisticulata* corresponds to the Olenekian to Anisian boundary, whereas *Ozarkodina turgida* characterizes Olenekian.

Pachycladina Staesche, 1964

Type Species *Pachycladina obliqua* Staesche, 1964.

Identified Species in Greece *Pachycladina inclinata*, *Pachycladina longispinosa*, *Pachycladina symmetrica*, *Pachycladina* sp.

Distribution The representatives of the genus *Pachycladina* have been described from the Early Triassic of Sfinari and Kambos of West Crete Island (Krahl et al. 1983), while *Pachycladina* ? sp. has been found in the Olenekian to Anisian of Parthenis of Chios Island (Tietze 1969).

Palmatolepis Ulrich and Bassler, 1926

Type Species *Palmatolepis perlobata* Ulrich and Bassler, 1926.

Identified Species in Greece *Palmatolepis crepida crepida*, *Palmatolepis delicatula clarki*, *Palmatolepis delicatula delicatula*, *Palmatolepis distorta*, *Palmatolepis elongata*, *Palmatolepis gigas*, *Palmatolepis glabra elongata*, *Palmatolepis glabra glabra*, *Palmatolepis glabra pectinata*, *Palmatolepis gracilis gracilis*, *Palmatolepis gracilis sigmoidalis*, *Palmatolepis helmsi*, *Palmatolepis minuta minuta*, *Palmatolepis*

perlobata perlobata, *Palmatolepis perlobata schindewolfi*, *Palmatolepis perlobata sigmoidea*, *Palmatolepis proversa*, *Palmatolepis punctata*, *Palmatolepis quadrantinodosa inflexa*, *Palmatolepis quadrantinodosa inflexoidea*, *Palmatolepis quadrantinodosa marginifera*, *Palmatolepis quadrantinodosa lobata*, *Palmatolepis regularis*, *Palmatolepis rhomboidea*, *Palmatolepis rugosa* cf. *ampla*, *Palmatolepis rugosa grossi*, *Palmatolepis rugosa postera*, *Palmatolepis rugosa rugosa*, *Palmatolepis rugosa trachytera*, *Palmatolepis subperlobata*, *Palmatolepis subrecta*, *Palmatolepis tenuipunctata*, *Palmatolepis termini*, *Palmatolepis triangularis*, *Palmatolepis* sp.

Distribution The genus *Palmatolepis*, from the Hellenic material, is represented by 15 species and 20 subspecies that refer only to the Chios Island. In particular, Kauffmann (1965), Herget and Roth (1968), and Roth (1968) have catalogued the largest population of species from the late Devonian to early Carboniferous of Kardamyla, Kambia, Keramos, Melanios–Agio Galas, Parparia, Potamia, Kipouries, Volisos, and Katavasi, and Larghi et al. (2005) have reported only *P. gracilis gracilis* and *P. gracilis sigmoidalis* from the late Devonian of Kardamyla.

Paltodus Pander, 1856

Type Species *Paltodus subaequalis* Pander, 1856.

Identified Species in Greece *Paltodus recurvatus*, *Paltodus rotundatus*, *Paltodus* sp.

Distribution Herget and Roth (1968), Roth (1968), and Tietze (1969) have described the three representatives of the genus *Paltodus* from the Devonian of Potamia, Kipouries, Katavasi, and Agia Anna of Chios Island.

Parachirognathus Clark, 1959

Type Species *Parachirognathus ethingtoni* Clark, 1959.

Identified Species in Greece *Parachirognathus petrae-viridis.*

Distribution The species *P. petrae-viridis* has been described from the Anisian of Theokafta (Argolis) and Katavasi, Anavatos, Rema Armenis, and Marathovouno in Chios Island (Roth 1968; Bender 1968b; Tietze 1969), while it has been also reported from the late Anisian to Carnian of Petassi Island (Hydra Island) (Römermann 1968).

Paragondolella Mosher, 1968

Type Species *Paragondolella navicula* (Huckriede, 1958).

Identified Species in Greece *Paragondolella excelsa*, *Paragondolella foliata*, *Paragondolella inclinata*, *Paragondolella navicula*, *Paragondolella navicula navicula*, *Paragondolella navicula steinbergensis*, *Paragondolella polygnathiformis*, *Paragondolella praelindae*, *Paragondolella steinbergensis*, *Paragondolella tadpole.*

Distribution Five *Paragondolella* species characterize the early Carnian of Agia Marina of Hydra Island (Muttoni et al. 2014), while *P. foliata* and *P. polygnathiformis* have been also found in the Carnian of Evia (De Bono et al. 2001). Vrielynck (1978a, 1980) has reported four species from the Middle to Late Triassic of Profitis Ilias, Mavrovouni–Prosimi, Karafotia–Trahla, and Asklipieion (Argolis) that have also been found along with *P. navicula* in the Middle to Upper Triassic sediments of Priolithos (Peloponnesus) and Nafpaktos (Flament 1973, Vrielynck in Fleury 1980). *P. navicula steinbergensis* and *P. polygnathiformis* have been reported from the Carnian to Norian of Mt. Othrys (Ferriere 1974) and *P. navicula* from the Middle Triassic of Mt. Ithome (Terry 1969).

Plectospathodus Branson and Mehl, 1933

Type Species *Plectospathodus flexuosus* Branson and Mehl, 1933.

Identified Species in Greece *Plectospathodus extensus.*

Distribution *P. extensus* has been described only from the Silurian to Devonian of Kardamyla, Potamia, Katavasi, Kipouries, and Agia Anna from Chios Island (Kauffmann 1965; Herget and Roth 1968; Roth 1968).

Pollognathus Kozur and Mostler, 1970

Type Species *Pollognathus sequens* (Kozur, 1968).

Identified Species in Greece *Pollognathus germanicus.*

Distribution Vrielynck (1978a) has found the species of *P. germanicus* in the Anisian to Norian of Profitis Ilias (Argolis), while it has been found also in the same detected age of the deposits in Mt. Vardoussia (Central Greece) by Ardaens (1978).

Polygnathoides Branson and Mehl, 1933

Type Species *Polygnathoides siluricus* Branson and Mehl, 1933.

Identified Species in Greece *Polygnathoides emarginatus*, *Polygnathoides siluricus.*

Distribution The representatives of the genus *Polygnathoides* have been reported from the Silurian of Kardamyla and Agia Anna (Chios Island), by Kauffmann (1965) and Walliser in Tietze (1969).

Polygnathus Hinde, 1879

Type Species *Polygnathus dubius* Hinde, 1879.

Identified Species in Greece *Polygnathus abneptis*, *Polygnathus carinata*, *Polygnathus* cf. *inortata*, *Polygnathus communis*, *Polygnathus linguiformis*, *Polygnathus linguiformis linguiformis*, *Polygnathus mehli*, *Polygnathus mungoensis*, *Polygnathus* cf. *pura*, *Polygnathus nodocostata*, *Polygnathus styriaca*, *Polygnathus tethydis*, *Polygnathus vogesi*, *Polygnathus* sp.

Distribution The genus *Polygnathus*, from the Hellenic material, is represented by 13 species and 1 subspecies, and they mainly refer to Chios Island. Seven species have been reported from Kambia, Melanios–Agio Galas, Potamia, Kipouries, Katavasi, Kardamyla, and Marmarotrapeza (Larghi et al. 2005; Bender and Kockel 1963; Herget and Roth 1968; Roth 1968). In spite of that, Bender et al. (1960) have catalogued *P. mehli*, *P. abneptis*, and *P. mungoensis* from the Middle to Late Triassic of the Adhami, Theokafta, and Alogomandra of Argolis, and Huckriede (1958) and Mauvier in Decourt (1964) have described *P. tethydis* from Asklipieion Epidaurus and Theokafta, respectively. Nonetheless, representatives of the genus have been found in Mt. Parnis of Attica (late Tournaisian, Caridroit et al. 2000; Olenekian to early Anisian, Bender and Kockel 1963) and Agia Triada and Mandraki–Hydra of Hydra Island (Bender and Kockel 1963; Huckriede 1958). Finally, *P. abneptis* has been also described from the Carnian of Cape Foustapidima in Corfu Island (Huckriede 1958), while Clement in 1977 has described *P. tethydis* from the Anisian of Mt. Helicon in Beotia.

Prioniodella Ulrich and Bassler, 1926

Type Species *Prioniodella normalis* Ulrich and Bassler, 1926.

Identified Species in Greece *Prioniodella ctenoides*, *Prioniodella decrescens*, *Prioniodella pectiniformis*, *Prioniodella prioniodellides.*

Distribution The genus *Prioniodella* has been found in the Hellenic material in three localities with four representatives. All of them have been reported by Bender et al. (1960) and Bender (1968b), from the Carnian of the Theokafta (Argolis) and Chios Island, except for *P. decrescens*, which has been reported from the early Norian of Drimos Peloponnesus (Flament 1973) and Triassic of Mandraki–Hydra Chora and Petassi Island (Huckriede 1958; Römermann 1968). Some representatives have been reported from the Olenekian–Ladinian of Chios Island (Tietze 1969), while *P. pectiniformis* and *P. ctenoides* have been also described from the Anisian to Ladinian of Asklipieion Epidaurus (Argolis) (Huckriede 1958).

Prioniodina Ulrich and Bassler, 1926
Subgenus *Prioniodina* (*Cypridodella*) Mosher, 1968

Type Species *Prioniodina subcurvata* Ulrich and Bassler, 1926.

Identified Species in Greece *Prioniodina* (*Cypridodella*) *muelleri*, *Prioniodina (Cypridodella) venusta*, *Prioniodina conflexa*, *Prioniodina ? dinodoides*, *Prioniodina excavata*, *Prioniodina kochi*, *Prioniodina latidentata*, *Prioniodina mediocris*, *Prioniodina mitzopouli*, *Prioniodina muelleri*, *Prioniodina petrae-viridis*, *Prioniodina* cf. *prona*, *Prioniodina pronoides*, *Prioniodina scolosculptura*, *Prioniodina spengleri*, *Prioniodina sweeti transita*, *Prioniodina sweeti-sweeti*, *Prioniodina venusta*, *Prioniodina* sp.

Distribution The genus *Prioniodina* is widely distributed in Hellenic peninsula, mainly in Argolis Peloponnesus within nine Middle to Upper Triassic deposits (Bender et al. 1960; Bender 1968b; Dürkoop et al. 1986; Vrielynck 1978a, 1980; Mauvier in Decourt 1964; Huckriede 1958). Other representatives have been found at the Middle to Late Triassic in Messinia (Mathia–Achladochori; Kozur in Thiebault 1982) and Achaia of Peloponnesus (Priolithos; Flament 1973). Many species have also been reported from several localities of Central Greece (Lekkas 1986; Ardaens 1978; Kauffmann in Fleury 1980; Vrielynck in Fleury 1980; Wigniole 1977). Krahl et al. (1986) have found three species in the Early Triassic of Myrsini and Tripokefala of East Crete Island, while Bender (1968b), Bender and Kockel (1963), and Tietze (1969) have described *Prioniodina* species from the Anisian of Chios Island. *P. kochi* has been also described from Mandraki (Hydra) by Huckriede (1958), while later Steuber (1991) has catalogued five species from Mt. Helicon of Beotia.

Pseudognathodus Perret, 1993

Type Species *Gnathodus homopunctatus* Ziegler, 1960.

Identified Species in Greece *Pseudognathodus homopunctatus.*

Distribution Groves et al. (2003) have described *P. homopunctatus* from the late Famennian (late Devonian) of Kourounia–Nenitouria (Chios Island).

Pseudopolygnathus Branson and Mehl, 1934b

Type Species *Pseudopolygnathus prima* Branson and Mehl, 1934b.

Included Species *Pseudopolygnathus marburgensis*, *Pseudopolygnathus micropunctata*, *Pseudopolygnathus dentilineata*, *Pseudopolygnathus triangula triangula.*

Distribution Herget and Roth (1968), Roth (1968), and Larghi et al. (2005) have reported the genus *Pseudopolygnathus* from the Hellenic material and specifically with four representatives from the late Devonian to Carboniferous of Kambia, Parparia, Kipouries, Katavasi, and Kardamyla of Chios Island.

***Roundya* Hass, 1953**

Type Species *Roundya barnettana* Hass, 1953.

Identified Species in Greece *Roundya lautissima*, *Roundya magnidentata*, *Roundya meissneri*, *Roundya* sp.

Distribution Bender et al. (1960) and Bender (1968b) have catalogued two species of the genus *Roundya* from the Carnian of Theokafta and Anisian to Ladinian of Alogomandra, while they have reported *R. magnidentata* from the Adhami of Argolis. Furthermore, *R. lautissima* has been described also from the Middle to Late Triassic of Asklipieion Epidaurus (Huckriede 1958), Theokafta Argolis (Mauvier in Decourt 1964), and Katavasi and Marathovouno of Chios Island (Roth 1968; Tietze 1969). *Roundya* species have been also reported from several localities of Chios Island (Roth 1968; Tietze 1969).

***Scaliognathus* Branson and Mehl, 1941**

Type Species *Scaliognathus anchoralis* Branson and Mehl, 1941.

Identified Species in Greece *Scaliognathus anchoralis.*

Distribution Herget and Roth (1968) have found the species *S. anchoralis* only in the early Carboniferous of Parparia and Potamia of Chios Island.

***Scaphignathus* Helms, 1959**

Type Species *Scaphignathus velifera* Ziegler, 1959.

Identified Species in Greece *Scaphignathus velifera.*

Distribution *S. velifera* has been reported only in the late Devonian of Kambia of Chios Island by Herget and Roth (1968).

***Sephardiella* March, Budurov, Hirsch and Márquez–Aliaga, 1988**

Type Species *Sephardiella mungoensis* (Diebel, 1956).

Identified Species in Greece *Sephardiella mungoensis.*

Distribution Concerning the Hellenic material, De Bono et al. (2001) have found the species of *S. mungoensis* only in the Carnian of Evia.

***Siphonodella* Branson and Mehl, 1944**

Type Species *Siphonodella duplicata* (Branson and Mehl, 1934b).

Identified Species in Greece *Siphonodella obsoleta.*

Distribution Herget and Roth (1968) have described this species from the early Carboniferous of Kambia, Melanios–Agio Galas, and Parparia of Chios Island.

Spathognathodus Branson and Mehl, 1941

Type Species *Spathodus primus* Branson and Mehl, 1933.

Identified Species in Greece *Spathognathodus bidentatus*, *Spathognathodus* cf. *cristagalli*, ★*Spathognathodus gondolelloides*, ★*Spathognathodus homeri*, *Spathognathodus inclinatus*, *Spathognathodus i. inclinatus*, *Spathognathodus inortatus*, *Spathognathodus orphanus*, *Spathognathodus pennatus pennatus*, *Spathognathodus stabilis*, *Spathognathodus steinhornensis* cf. *eosteinhornensis*, *Spathognathodus steinhornensis* cf. *remscheidensis*, *Spathognathodus strigosus*, ★*Spathognathodus triangularis*, *Spathognathodus* sp.

Distribution The genus *Spathognathodus* is represented by 12 species and 4 subspecies in the Hellenic material, which are mainly referred to Chios Island. Specifically, *S. i. inclinatus* and *S. p. pennatus* have been found in the Silurian of Kardamyla (Kauffmann 1965), whereas eight species have been found only in the late Devonian to early Carboniferous in 10 different localities (Herget and Roth 1968; Roth 1968; Tietze 1969), and other species have been found in 12 localities of Olenekian to Anisian sequences (Bender and Kockel 1963; Roth 1968; Tietze 1969; Tietze in Jacobshagen and Tietze 1974). Nevertheless, *S. gondolelloides* and *S. homeri* have been catalogued by Bender and Kockel (1963), from the Olenekian to early Anisian of Mt. Parnis (Attica), while they also have been found in the Permian/Triassic boundary of Episkopi Hydra Island (Römermann 1968) and the Anisian of Beotia (Clement 1977). Finally, *S. orphanus* has been reported only from the late Carboniferous of Sfinari (West Crete Island; Krahl et al. 1983).

Remarks Bender in 1968b has described three new species of *Spathognathodus* from the Triassic limestones of Marathovouno of Chios Island. *Spathognathodus homeri* and *Spathognathodus gondolelloides* characterize the early Anisian, while *Spathognathodus triangularis* characterizes the Olenekian.

Streptognathodus Stauffer and Plummer, 1932

Type Species *Streptognathodus excelsus* Stauffer and Plummer, 1932.

Identified Species in Greece *Streptognathodus elegantulus*, *Streptognathodus* ex. aff. *elongatus*, *Streptognathodus gracilis*, *Streptognathodus ruzhencevi*, *Streptognathodus* sp.

Distribution *S.* ex. aff. *elongatus* has been reported from the Carboniferous of Chios Island (Agios Georgios Sykousis; Tietze 1969), while all the other represen-

tatives of the genus *Streptognathodus* have been found in the late Carboniferous of Sfinari in West Crete Island (Krahl et al. 1983).

***Subbryantodus* Branson and Mehl, 1941**

Type Species *Subbryantodus arcuatus* Branson and Mehl, 1941.

Identified Species in Greece *Subbryantodus* sp.

Distribution *Subbryantodus* sp. has been found only in the Kasimovian of Agios Georgios Sykousis in Chios Island (Tietze 1969).

***Sweetognathus* Clark, 1972**

Type Species *Spathognathodus whitei* Rhodes, 1963.

Identified Species in Greece *Sweetognathus bogoslovskajae.*

Distribution The species *S. bogoslovskajae* has been reported only from the Permian of Myrsini (East Crete Island), by Krahl et al. (1986).

***Synprioniodina* Bassler, 1925**

Type Species *Synprioniodina alternata* Bassler, 1925.

Identified Species in Greece *Synprioniodina* sp.

Distribution In the Hellenic material *Synprioniodina* sp. has been described only from the Kasimovian of Chios (Agios Georgios Sykousis) by Tietze in 1969.

★*Tardogondolella* Bender, 1968b

Type Species ★*Tardogondolella abneptis* (Huckriede, 1958).

Identified Species in Greece ★*Tardogondolella abneptis.*

Distribution Bender (1968b) has described *T. abneptis* from the Carnian of Theokafta (Argolis Peloponnesus). Furthermore, Dürkoop et al. (1986) have described it from Hydra Island and Römermann (1969) from Petassi and Kivotos Islands, while Tietze (1969) has found it in Korakaris (Chios Island).

Remarks The genus *Tardogondolella* has been described for the first time from the Carnian of Theokafta Argolis, and it was attributed to the genus *Polygnathus*.

***Trichonodella* (*Trichognathus*) Branson and Mehl, 1933**

Type Species *Trichognathus prima* Branson and Mehl, 1933.

Identified Species in Greece *Trichonodella excavata*, *Trichonodella inconstans*, *Trichonodella symmetrica*, *Trichonodella* sp.

Distribution The representatives of the genus *Trichonodella* have been catalogued by Kauffmann (1965), Herget and Roth (1968), Roth (1968), and Tietze (1969), only from four localities of the Silurian to late Devonian of Chios Island.

***Veghella* Kozur and Mostler, 1970**

Type Species *Veghella delicatula* (Budurov, 1960).

Identified Species in Greece *Veghella delicatula.*

Distribution In the Greek material, *V. delicatula* has been found only in the late Anisian to Norian of Mt. Vardoussia (Central Greece), by Ardaens (1978).

***Xaniognathus* Sweet, 1970**

Type Species *Xaniognathus curvatus* Sweet, 1970.

Identified Species in Greece ★*Xaniognathus hydraensis*, *Xaniognathus turgidus*, *Xaniognathus* sp.

Distribution Krahl et al. (1983) have found *X. turgidus* and *Xaniognathus* sp. in the Early Triassic of Voutas (West Crete Island), while Nestell and Wardlaw (1987) have found *X. hydraensis* in the Wuchiapingian of Episkopi, Agios Taxiarchis, and Klimaki of Hydra Island.

Remarks *X. hydraensis* has been described for the first time by Nestel and Wardlaw in 1987, from the Wuchiapingian of Hydra Island. The type locality is approximately 115 m above Agios Taxiarchis, and 7 m below the contact with the overlying Triassic Eros limestone, and consists also a limestone of the Permian sequence of Hydra Island.

6 Concluding Remarks

According to the data presented in this review work, conodonts from the Hellenic peninsula have been studied already from the beginning of 1960 until nowadays by a great number of researchers. The existence of these assemblages has been reported from several formations/outcrops around the Greek territory, spanning the Silurian to Triassic periods. Most of the sites belong to deposits of the Sub-Pelagonian geotectonic unit, while some of them belong to Pindos and Trypali units. Finally, only one site (Corfu) is reported from the Ionian unit. The aforementioned localities belong mainly to the central and south Greece. Distinctly, 5 of them referred to the

mainland, Central Greece, Beotia, Evia, Attica, and Peloponnesus, while the rest to the 4 Islands of Hydra, Chios, Corfu, and Crete, with over than 80 localities and many more outcrops. The most studied regions are Argolida, Hydra, and Chios Island; nevertheless the most stratigraphically completed ones are Chios (Silurian to Upper Triassic) and Crete (upper Carboniferous to Upper Triassic) Islands. The total number of recorded genera is 90 with 348 representative species and 74 subspecies.

From the mainland, and specifically Central Greece, outcrops have been studied from Pyli Trikala, East Mt. Koziakas, Mt. Othrys, Mt. Iti (Latsinies), Mt. Vardoussia, Kotsilieri, Galaxidi (Koutsouros–Kokkinovrakhos), Psilovrakhos–Karpenisi–Fragista, and Nafpaktos. The conodont fauna of all these localities comprises 24 genera and indicates a Middle to Late Triassic age. In Beotia in Mt. Helicon, the conodont assemblage consists of 19 Middle to Late Triassic genera, while the assemblage from Evia contains only 5 species that suggest a Carnian age.

From Attica, Mt. Parnis, two outcrops have been studied: the first one indicates a lower Carboniferous deposit in spite of the second one that implies Lower to lower Middle Triassic. The most studied region of the mainland is Peloponnesus, distinguished into three main subregions: Achaia, Messinia, and Argolis. Achaia and Messinia have been studied from three outcrops each that comprise 13 and 5 genera, respectively, indicating Middle to Late Triassic deposits. Argolis conodont fauna has been described from 11 distinguished localities with 36 genera catalogued that suggest Triassic deposits. Most importantly, from Argolis material four new species have been described, *Epigondolella rigoi* Kozur 2007, *Epigondolella stefanionensis* Noyan 2007, *Metapolygnathus multinodosus* Noyan 2007, and *Neogondolella palata* Bender 1968b and the genus *Tardogondolella* Bender 1968b.

From the Greek archipelago, the conodont research focused on four islands. The first one, Corfu Island, is less studied, with only one species reported from a Carnian formation. Secondly, from Hydra Island, 19 localities (including 3 small nearby Islands) with more than 40 outcrops have been studied that comprise a late Permian to Late Triassic conodont fauna. Moreover, from Hydra's material a new species was identified, *Xaniognathus hydraensis* Nestel and Wardlaw 1987. The conodont data, from Chios Island, that sum up into this review paper present the most stratigraphically complete record, with 17 Paleozoic, 11 Mesozoic distinguished localities, and many more outcrops, that suggest a continuous succession from Silurian to Carnian. Additionally, this material led Bender in 1968b to identify two new genera, *Anastrophognathus* and *Neogondolella*. He also described 14 new species: *Anastrophognathus sagittalis*, *Apatognathus mitzopouli*, *Apatognathus radiatus*, *Ctenognathus chionensis*, *Gladigondolella carinata*, *Hindeodella bitorta*, *Hindeodella ceweki*, *Hindeodella stoppeli*, *Neogondolella aegaea*, *Ozarkodina ? fisticulata*, *Ozarkodina turgida*, *Spathognathodus gondolelloides*, *Spathognathodus homeri*, and *Spathognathodus triangularis*. The last location, Crete Island, also presents a big stratigraphic range, with 9 localities and over than 25 genera that indicate a continuous succession from Upper Carboniferous to Upper Triassic. Our results contribute to a review of conodont assemblages and to a stratigraphic assessment of the Paleozoic and Mesozoic fossiliferous deposits from the Hellenic peninsula.

Acknowledgments The authors would like to thank Dr. Martin Langer (University of Bonn), Dr. György Less (University of Miskolc) and Dr. Viktor Karádi (Eötvös Loránd University of Budapest), for tracking down and providing fruitful bibliographic material; as well as Dr. Maria V. Triantaphyllou and Dr. Margarita D. Dimiza (National and Kapodistrian University of Athens) for their valuable scientific suggestions, advices, and discussions. The comments of two anonymous reviewers are greatly appreciated.

Appendix

List of Fossil Localities with Occurrences of Conodonts in Greece

Locality	Series/stages	Basic references
Taxa		
Central Greece		
Pyli Trikala	Upper Triassic (early to middle Norian)	1
Epigondolella echinata, *Epigondolella permica*, *Prioniodina sweeti–sweeti*		
East Mt. Koziakas	Upper Triassic (Carnian to Norian)	2
Enantiognathus ziegleri, *Epigondolella bidentata*, *Epigondolella nodosa*, *Epigondolella permica*, *Epigondolella postera*, *Epigondolella pseudodiebeli*, *Neohindeodella* sp., *Neogondolella navicula*, *Neogondolella navicula steinbergensis*, *Neogondolella polygnathiformis*, *Neogondolella tadpole*, *Neogondolella* sp., *Neospathodus hernsteini*, *Neospathodus* sp., *Prioniodina sweeti transita*, *Prioniodina* (*Cypridodella*) *muelleri*, *Prioniodina* sp.		
Mt. Othrys	Carnian to Norian	3
Epigondolella abneptis, *Epigondolella bidentata*, *Epigondolella postera*, *Gondolella polygnathiformis*, *Paragondolella navicula steinbergensis*, *Paragondolella polygnathiformis*		
Mt. Iti (Latsinies)	Upper Triassic (late Carnian to early Norian)	4
Chirodella dinodoides, *Epigondolella abneptis*, *Epigondolella bidentata*, *Epigondolella permica*, *Epigondolella postera*, *Neohindeodella triassica triassica*, *Neospathodus hernsteini*, *Prioniodina excavata*		
Mt. Vardoussia	Middle to Upper Triassic (late Anisian to Norian)	2, 5

Locality	Series/stages	Basic references
Conodonts, *Apatognathus mitzopouli*, *Chirodella dinodoides*, *Chirodella gracilis*, *Cornudina tortilis*, *Cratognathodus kochi*, *Didymodella* cf. *alternata*, *Didymodella* sp., *Diplododella meissneri*, *Diplododella thuringensis*, *Enantiognathus petrae-viridis*, *Enantiognathus ziegleri*, *Epigondolella abneptis*, *Epigondolella bidentata*, *Epigondolella nodosa*, *Epigondolella permica*, *Gladigondolella tethydis*, *Gondolella aegea*, *Gondolella bulgarica*, *Gondolella excelsa*, *Gondolella* sp., *Hindeodella* (*Metaprioniodus*) *andrusovi andrusovi*, *Hindeodella* (*Metaprioniodus*) *andrusovi koeveskalensis*, *Hindeodella* (*Metaprioniodus*) *suevica*, *Hindeodella stoppeli*, *Lonchodina ? posterognathus*, *Lonchodina hungarica*, *Metapolygnathus* cf. *tadpole*, *Metapolygnathus parvus*, *Metapolygnathus polygnathiformis*, *Metaprioniodus benderi*, *Metaprioniodus* sp., *Neogondolella navicula hallstattensis*, *Neogondolella navicula navicula*, *Neogondolella navicula steinbergensis*, *Neohindeodella* cf. *requiramosa*, *Neohindeodella dropla*, *Neohindeodella summesbergeri praecursor*, *Neohindeodella triassica*, *Neohindeodella triassica kobayashii*, *Neohindeodella triassica riegeli*, *Neohindeodella triassica triassica*, *Neospathodus* cf. *cristagalli*, *Neospathodus germanicus*, *Neospathodus homeri*, *Neospathodus triangularis*, *Neospathodus* sp., *Ozarkodina tortilis*, *Ozarkodina turgida*, *Pollognathus germanicus*, *Prioniodina (Cypridodella) muelleri*, *Prioniodina (Cypridodella) venusta*, *Prioniodina excavata*, *Prioniodina* sp., *Veghella delicatula*		
Kotsilieri	Middle to Upper Triassic (Anisian to Carnian)	2
Chirodella dinodoides, *Diplododella bidentata*, *Epigondolella bidentata*, *Epigondolella permica*, *Neohindeodella triassica triassica*, *Ozarkodina tortilis*, *Prioniodina* (*Cypridodella*) *muelleri*		
Galaxidi (Koutsouros–Kokkinovrakhos)	Middle to Upper Triassic (Anisian to Norian)	2, 6
Conodonts, *Chirodella dinodoides*, *Cornudina breviramulis minor*, *Cornudina oezdemirae*, *Enantiognathus petrae-viridis*?, *Enantiognathus ziegleri*, *Epigondolella permica*, *Gladigondolella tethydis*, *Gondolella* sp., *Hindeodella* (*Metaprioniodus*) *andrusovi andrusovi*, *Hindeodella* (*Metaprioniodus*) *splengeri*, *Hindeodella triassica triassica*, *Metapolygnathus polygnathiformis*, *Neogondolella navicula navicula*, *Neogondolella navicula steinbergensis*, *Neogondolella* sp., *Neohindeodella summesbergeri praecursor*, *Neohindeodella triassica kobayashii*, *Neohindeodella triassica triassica*, *Neospathodus* cf. *aequiramosa*, *Neospathodus* cf. *cristagalli*, *Neospathodus* aff. *germanicus*, *Neospathodus* cf. *kockeli*, *Prioniodina* (*Cypridodella*) *muelleri*, *Prioniodina* (*Cypridodella*) *venusta*		
Psilovrakhos–Karpenisi–Fragista	Triassic (Olenekian to Norian)	7
Anastrophognathus sagittalis, *Chirodella dinodoides*, *Enantiognathus ziegleri*, *Epigondolella bidentata*, *Epigondolella diebeli*, *Epigondolella nodosa*, *Epigondolella permica*, *Epigondolella postera*, *Gladigondolella tethydis*, *Hindeodella pectiniformis*, *Hindeodella* (*Metaprioniodus*) *andrusovi*, *Hindeodella* (*Metaprioniodus*) *pectiniformis*, *Hindeodella* (*Metaprioniodus*) *spengleri*, *Neogondolella navicula steinbergensis*, *Neohindeodella triassica triassica*, *Neohindeodella triassica ziegleri*, *Ozarkodina tortilis*, *Prioniodina (Cypridodella) muelleri*, *Prioniodina* (*Cypridodella*) *venusta*		
Nafpaktos	Middle to Upper Triassic (late Ladinian to Carnian)	8

Locality	Series/stages	Basic references
Chirodella dinodoides, *Enantiognathus ziegleri*, *Epigondolella bidentata*, *Epigondolella nodosa*, *Epigondolella permica*, *Epigondolella postera*, *Hibbardella magnidentata*, *Metapolygnathus polygnathiformis*, *Neohindeodella dropla*, *Neohindeodella triassica triassica*, *Ozarkodina tortilis*, *Paragondolella excelsa*, *Paragondolella navicula navicula*, *Prioniodina* (*Cypridodella*) *muelleri*		
Beotia		
Mt. Helicon	Middle Triassic (Anisian to Ladinian)	9, 10
Chirodella dinodoides, *Cornudina breviramulis*, *Cornudina tortilis*, *Cratognathodus posterognathus agnulatus*, *Cratognathodus posterognathus posterognathus*, *Didymodella alternata*, *Diplododella bidentata*, *Enantiognathodus petraeviridis*, *Enantiognathodus ziegleri*, *Gladigondolella tethydis*, *Gondolella aegea*, *Gondolella bakalovi*, *Gondolella constricta*, *Gondolella eotrammeri*, *Gondolella excelsa*, *Gondolella trammeri*, *Hibbardella lautissima*, *Hibbardella magnidentata*, *Hibbardelloides acroforme*, *Hindeodella andrusovi*, *Hindeodella bogschi*, *Hindeodella multihamata*, *Hindeodella pectiniformis*, *Hindeodella spengleri sapanlii*, *Hindeodella spengleri spengleri*, *Hindeodella suevica*, *Lonchodina hungarica*, *Neohindeodella dropla*, *Neohindeodella triassica aequidentata*, *Neohindeodella triassica riegeli*, *Neohindeodella triassica triassica*, *Neoplectospathodus muelleri*, *Neolectospathodus* sp., *Ozarkodina tortilis*, *Polygnathus tethydis*, *Prioniodina mediocris*, *Prioniodina muelleri*, *Prioniodina pronoides*, *Prioniodina scolosculptura*, *Prioniodina venusta*, *Spathognathodus gondolelloides*, *Spathognathodus homeri*		
Evia		
Xirovouni–Seta	Upper Triassic (Carnian)	11
Gladigondolella malayensis, *Gladigondolella tethydis*, *Paragondolella foliata*, *Paragondolella polygnathiformis*, *Sephardiella mungoensis*		
Attica		
Mt. Parnis	Mississippian (late Tournaisian)	12
Polygnathus mehli		
Mt. Parnis	Lower to Middle Triassic (Olenekian to early Anisian)	13
Gondolella aegea, *Polygnathus tethydis*, *Spathognathodus gondolelloides*, *Spathognathodus homeri*		
Peloponnesus		
Priolithos–Drimos	Upper Triassic (Carnian to Norian)	14
Chirodella dinodoides, *Cratognathodus kochi*, *Cypridodella conflexa*, *Cypridodella delicatula*, *Cypridodella mediocris*, *Cypridodella muelleri*, *Cypridodella* sp., *Diplododella bidentata*, *Diplododella magnidentata*, *Enantiognathus ziegleri*, *Epigondolella abneptis*, *Epigondolella bidentata*, *Epigondolella multidentata*, *Epigondolella primitia*, *Hibbardella zapfei*, *Hindeodella suevica*, *Hindeodella triassica*, *Hindeodella uniforma*, *Neospathodus hernsteini*, *Neospathodus* sp., *Oncodella pausidentata*, *Ozarkodina tortilis*, *Paragodolella navicula navicula*, *Paragondolella navicula steinbergensis*, *Paragondolella polygnathiformis*, *Prioniodella decrescens*, *Prioniodina excavata*, *Prioniodina petrae-viridis*		

Locality	Series/stages	Basic references
Klitoria	Upper Triassic (late Carnian to Norian)	8
Epigondolella abneptis, *Epigondolella bidentata*, *Epigondolella permica*, *Neospathodus hernsteini*, *Oncodella pausidentata*, *Paragondolella navicula steinbergensis*		
Mathia–Achladochori	Upper Triassic (late Carnian to early Norian)	15
Gondolella navicula hallstattensis, *Gondolella polygnathiformis*, *Gondolella tadpole*, *Gondolella* sp., *Metapolygnathus abneptis abneptis*, *Metapolygnathus echinatus*, *Metapolygnathus primitius*, *Metapolygnathus pseudodiebeli*, *Neohindeodella dropla*, *Neohindeodella triassica triassica*, *Prioniodina* (*Cypridodella*) *muelleri*		
Mt. Ithome	Middle Triassic	16
Gondolella mombergensis, *Paragondolella navicula*		
Asklipieion Epidaurus	Middle to Upper Triassic (Anisian to Carnian)	17–22
Anastrophognathus sagittalis, *Apatognathus ziegleri*, *Chirodella dinodoides*, *Cornudina torilis*, *Didymodella alternata*, *Enantiognathus petrae-viridis*, *Enantiognathus ziegleri*, *Epigondolella abneptis*, *Epigondolella hungarica*, *Epigondolella mungoensis*, *Epigondolella nodosa*, *Epigondolella permica*, *Gladigondolella malayensis*, *Gladigondolella* sp., *Gladigondolella tethydis*, *Gondolella excelsa*, *Gondolella navicula*, *Gondolella polygnathiformis*, *Hindeodella (Metaprioniodus)* cf. *koeveskalensis*, *Hindeodella (Metaprioniodus) multihamata*, *Hindeodella (Metaprioniodus) suevica*, *Hindeodella petrae-viridis*, *Hindeodella triassica*, *Lonchodina latidentata*, *Lonchodina muelleri*, *Lonchodina spengleri*, *Lonchodina venusta*, *Metapolygnathus polygnathiformis*, *Neogondolella constricta*, *Neogondolella mombergensis*, *Neogondolella palata*, *Neohindeodella triassica triassica*, *Ozarkodina saginata*, *Ozarkodina tortilis*, *Paragondolella excelsa*, *Paragondolella navicula*, *Paragondolella polygnathiformis*, *Paragondolella tadpole*, *Polygnathus tethydis*, *Prioniodella ctenoides*, *Prioniodella pectiniformis*, *Prioniodina (Cypridodella) muelleri*, *Prioniodina (Cypridodella) venusta*, *Prioniodina* ? *dinodoides*, *Prioniodina kochi*, *Roundya lautissima*		
Theokafta	Middle to Upper Triassic (Anisian to Carnian)	23–25
Apatognathus ziegleri, ? *Falcodus* sp., *Gladigondolella carinata*, *Gladigondolella tethydis*, *Gondolella navicula*, *Hindeodella multihamata*, *Hindeodella petrae-viridis*, *Hindeodella triassica*, *Lonchodina discreta*, *Lonchodina muelleri*, *Lonchodina spengleri*, *Lonchodina venusta*, *Metalonchodina digitiformis*, *Neogondolella navicula*, ***Neogondolella palata***, *Ozarkodina saginata*, *Ozarkodina tortilis*, *Ozarkodina turgida*, *Parachirognathus petrae-viridis*, *Polygnathus abneptis*, *Polygnathus mungoensis*, *Polygnathus tethydis*, *Prioniodella ctenoides*, *Prioniodella decrescens*, *Prioniodella pectiniformis*, *Prioniodella prioniodellides*, *Prioniodina* cf. *prona*, *Prioniodina kochi*, *Prioniodina latidentata*, *Prioniodina mediocris*, *Roundya lautissima*, *Roundya magnidentata*, *Tardogondolella abneptis*		
Adhami	Triassic (Olenekian to middle Carnian)	19, 25, 26

Locality	Series/stages	Basic references
Cratognathodus kochi, *Cratognathodus posterognathus*, *Didymodella alternata*, *Diplododella bidentata*, *Diplododella triassica*, *Enantiognathus bitortus*, *Enantiognathus mitzopouli*, *Enantiognathus petraeviridis*, *Enantiognathus ziegleri*, *Euprioniodina mediocris*, *Euprioniodina muelleri*, *Euprioniodina multihamata*, *Euprioniodina pectiniformis*, *Euprioniodina petraeviridis*, *Euprioniodina pronoides*, *Gladigondolella tethydis*, *Gondolella arcuata*, *Gondolella basisymmetrica*, *Gondolella bifurcata*, *Gondolella constricta*, *Gondolella cornuta*, *Gondolella excelsa*, *Gondolella excentrica*, *Gondolella mombergensis*, *Gondolella navicula*, *Gondolella polygnathiformis*, *Gondolella tadpole*, *Gondolella timorensis*, *Hibbardella lautissima*, *Hibbardella magnidentata*, *Hindeodella petrae-viridis*, *Hindeodella suevica*, *Hindeodella triassica*, *Hindeodella* (*Metaprioniodus*) *pectiniformis*, *Lonchodina muelleri*, *Lonchodina spengleri*, *Lonchodina venusta*, *Metapolygnathus abneptis*, *Metapolygnathus bidentatus*, *Metapolygnathus mostleri*, *Metapolygnathus multidentatus, Metapolygnathus mungoensis*, *Metapolygnathus nodosus*, *Metapolygnathus primitius*, *Metapolygnathus spengleri*, *Metapolygnathus hungaricus*, *Neospathodus homeri*, *Neospathodus triangularis*, *Nicoraella kockeli*, *Ozarkodina saginata*, *Ozarkodina tortilis*, *Polygnathus abneptis*, *Polygnathus tethydis*, *Prioniodina (Cypridodella) muelleri*, *Prioniodina conflexa*, *Prioniodina latidentata*, *Prioniodina spengleri*, *Prioniodina venusta*, *Roundya magnidentata*		
Alogomandra	Middle Triassic (Anisian to Ladinian)	25
Gondolella navicula, *Hindeodella multihamata*, *Hindeodella petrae-viridis*, *Hindeodella triassica*, *Lonchodina muelleri*, *Lonchodina spengleri*, *Lonchodina venusta*, *Ozarkodina tortilis*, *Polygnathus tethydis*, *Roundya lautissima*, *Roundya magnidentata*		
Mavrovouni–Prosimi–Stefanion	Upper Triassic (late Carnian to Norian)	19, 21, 27
Carnepigondolella nodosa, *Chirodella dinodoides*, *Cornudina breviramulis minor*, *Epigondolella abneptis*, *Epigondolella bidentata*, *Epigondolella echinata*, *Epigondolella multidentata*, *Epigondolella nodosa*, *Epigondolella permica*, *Epigondolella postera*, *Epigondolella quadrata*, ***Epigondolella rigoi***, ***Epigondolella stefanionensis***, *Epigondolella ziegleri*, *Hibbardella magnidentata*, *Hindeodella (Metaprioniodus) andrusovi andrusovi*, *Hindeodella (Metaprioniodus) suevica*, *Metapolygnathus communisti communisti*, *Metapolygnathus communisti parvus*, *Metapolygnathus communisti*, ***Metapolygnathus multinodosus***, *Metapolygnathus zoae*, *Misikella hernsteini*, *Neohindeodella summesbergeri praecursor*, *Neohindeodella summesbergeri summesbergeri*, *Neohindeodella triassica triassica*, *Oncodella pausidentata*, *Ozarkodina tortilis*, *Paragondolella navicula steinbergensis*, *Paragondolella navicula*, *Paragondolella polygnathiformis*, *Paragondolella steinbergensis*, *Paragondolella tadpole*, *Prioniodina (Cypridodella) muelleri*, *Prioniodina excavata*		
Profitis Ilias	Middle to Upper Triassic (Anisian to Norian)	19
Chirodella dinodoides, *Gladigondolella tethydis*, *Grodella delicatula*, *Hindeodella (Metaprioniodus) bicuspidata*, *Hindeodella (Metaprioniodus) suevica*, *Metapolygnathus polygnathiformis*, *Neohindeodella dropla*, *Neohindeodella triassica riegeli*, *Neohindeodella triassica triassica*, *Paragondolella excelsa*, *Paragondolella* cf. *excelsa*, *Pollognathus germanicus*, *Prioniodina (Cypridodella) muelleri*		
Moni Taxiarchis–Tsoukalia	Upper Triassic (Norian)	22
Epigondolella abneptis		

Locality	Series/stages	Basic references
Trapezona	Upper Triassic (late Carnian to Norian)	19, 20, 21
Chirodella dinodoides, *Epigondolella nodosa*, *Epigondolella permica*, *Neohindeodella summesbergeri summesbergeri*, *Neohindeodella triassica riegeli*, *Neohindeodella triassica triassica*, *Prioniodina (Cypridodella) muelleri*		
Midhea	Middle to Upper Triassic (Ladinian to Norian)	19
Cornudina breviramulis minor, *Cornudina* sp., *Metapolygnathus polygnathiformis*, *Misikella hernsteini*, *Neohindeodella* cf. *triassica triassica*, *Prioniodina* (*Cypridodella*) *muelleri*, *Epigondolella* sp.		
Karafotia–Trahla	Upper Triassic (Carnian to Norian)	19, 21
Chirodella dinodoides, *Cornudina breviramulis minor*, *Diplododella bidentata*, *Diplododella meissneri*, *Enantiognathus ziegleri*, *Epigondolella bidentata*, *Epigondolella nodosa*, *Epigondolella permica*, *Epigondolella ziegleri*, *Hibbardella magnidentata*, *Hindeodella* (*Metaprioniodus*) *andrusovi andrusovi*, *Hindeodella* (*Metaprioniodus*) *suevica*, *Metapolygnathus polygnathiformis*, *Neogondolella navicula steinbergensis*, *Neohindeodella summesbergeri praecursor*, *Neohindeodella summesbergeri summesbergeri*, *Neohindeodella triassica riegeli*, *Neohindeodella triassica triassica*, *Ozarkodina tortilis*, *Paragondolella steinbergensis*, *Paragondolella tadpole*, *Prioniodina* (*Cypridodella*) *muelleri*		
Iliokastro–Kastro Hill	Middle Triassic (Ladinian	22
Gondolella trammeri		
Hydra		
Zogeika	Middle Triassic (late Anisian)	26
Cratognathodus kochi, *Gondolella excelsa*, *Gondolella navicula*		
Agios Nikolaos monastery (4 localities)	Middle Triassic (late Anisian)	26
Anastrophognathus sagittalis, *Cratognathodus kochi*, *Gladigondolella tethydis*, *Gondolella constricta*, *Gondolella excelsa*, *Gondolella mombergensis*, *Gondolella navicula*		
Agia Triada	Middle Triassic (late Anisian/ early Ladinian)	13, 17, 28, 29
Budurovignathus hungaricus, *Budurovignathus mungoensis*, *Cratognathodus kochi*, *Enantiognathus ziegleri*, *Gladigondolella tethydis*, *Gondolella bifurcata bifurcata*, *Gondolella bifurcata hanbulogi*, *Gondolella bulgarica*, *Gondolella cornuta*, *Gondolella eotrammeri*, *Gondolella excelsa*, *Gondolella foliata inclinata*, *Gondolella fueloepi fueloepi*, *Gondolella fueloepi pseudobifurcata*, *Gondolella liebermani*, *Gondolella navicula*, *Gondolella tethydis*, *Gondolella trammeri*, *Neospathodus kockeli*, *Ozarkodina* sp., *Polygnathus tethydis*		
Mandraki–Hydra Chora	Upper Triassic (Carnian)	17, 26

Locality	Series/stages	Basic references
Apatognathus ziegleri, *Gondolella navicula*, *Gondolella polygnathiformis*, *Hindeodella petrae-viridis*, *Lonchodina latidentata*, *Lonchodina muelleri*, *Lonchodina spengleri*, *Lonchodina venusta*, *Metapolygnathus nodosus*, *Ozarkodina saginata*, *Polygnathus tethydis*, *Prioniodella decrescens*, *Prioniodina kochi*		
Malies	Middle Triassic (late Anisian to Ladinian)	30
Cratognathodus kochi, *Gladigondolella tethydis*, *Gondolella cornuta*, *Gondolella* aff. *eotrammeri*, *Gondolella excelsa*, *Gondolella* aff. *szaboi*, *Gondolella* sp., *Gondolella trammeri*, *Ozarkodina* sp.		
Klimaki	Lopingian (Wuchiapingian)	31
Neogondolella orientalis, *Xaniognathus hydraensis*		
Pirghos	Middle Triassic (late Anisian–Ladinian)	30
Enantiognathus ziegleri, *Gladigondollela tethydis*, *Gondolella bifurcata bifurcata*, *Gondolella bifurcata hanbulogi*, *Gondolella bulgarica*, *Gondolella constricta*, *Gondolella cornuta*, *Gondolella excelsa*, *Gondolella trammeri*, *Neospathodus kockeli*, *Ozarkodina* sp.		
Agios Taxiarchis	Lopingian (Wuchiapingian)	31
Ellisonia sp., *Hindeodus julfensis*, *Neogondolella orientalis*, ***Xaniognathus hydraensis***		
Kaminia	Upper Triassic (Carnian to Norian)	26, 32
Gondolella polygnathiformis, *Gondolella tadpole*, *Metapolygnathus bidentatus*, *Metapolygnathus multidentatus*, *Metapolygnathus nodosus*, *Neogondolella navicula*, *Tardogondolella abneptis*		
Vlichos	Middle Triassic (middle to late Anisian)	26, 28
Gladigondolella tethydis, *Gondolella bifurcata bifurcata*, *Gondolella bulgarica*, *Gondolella constricta*, *Gondolella cornuta*, *Gondolella excelsa*, *Gondolella fueloepi pseudobifurcata*, *Gondolella mombergensis*, *Gondolella navicula*, *Gondolella tethydis*, *Neospathodus kockeli*		
Mt. Eros	Middle Triassic (late Anisian)	26
Gladigondolella tethydis, *Gondolella constricta*, *Gondolella excelsa*, *Gondolella mombergensis*, *Gondolella navicula*		
Palamidas	Upper Triassic (Carnian)	26
Gondolella polygnathiformis, *Metapolygnathus nodosus*, *Metapolygnathus primitius*		
Agia Marina	Middle to Upper Triassic (late Anisian to Norian)	17, 26, 28–30

Locality	Series/stages	Basic references
Carnepigondolella gulloae, *Carnepigondolella nodosa*, *Enantiognathus ziegleri*, *Epigondolella quadrata*, *Gladigondolella malayensis malayensis*, *Gladigondolella* sp., *Gladigondolella tethydis*, *Gondolella bifurcata bifurcata*, *Gondolella bifurcata hanbulogi*, *Gondolella* aff. *bifurcata hanbulogi*, *Gondolella bulgarica*, *Gondolella cornuta*, *Gondolella eotrammeri*, *Gondolella excelsa*, *Gondolella liebermani*, *Gondolella* sp., *Hindeodella petrae-viridis*, *Metapolygnathus abneptis*, *Metapolygnathus multidentatus*, *Metapolygnathus posterus*, *Neocavitella tatrica*, *Neospathodus kockeli*, *Norigondolella kozuri*, *Norigondolella navicula*, *Norigondolella steinbergensis*, *Norigondolella* sp., *Ozarkodina* sp., *Paragondolella foliata*, *Paragondolella inclinata*, *Paragondolella polygnathiformis*, *Paragondolella praelindae*, *Paragondolella tadpole*		
Episkopi	Permian to Upper Triassic (Lopingian to Carnian)	26, 30–33
Enantiognathus ziegleri, *Gladigondolella carinata*, *Gladigondolella tethydis*, *Gondolella* aff. *eotrammeri*, *Gondolella bulgarica*, *Gondolella constricta*, *Gondolella excelsa*, *Gondolella foliata foliata*, *Gondolella polygnathiformis*, *Gondolella* sp., *Gondolella tadpole*, *Hindeodella stoppeli*, *Hindeodella triassica*, *Hindeodus julfensis*, *Hindeodus typicalis*, *Neogondolella leveni*, *Neogondolella orientalis*, *Neospathodus homeri*, *Neospathodus triangularis*, *Ozarkodina* sp., *Spathognathodus gondolelloides*, *Spathognathodus homeri*, *Xaniognathus hydraensis*		
Tsigkri	Middle Triassic (late Anisian)	26
Cratognathodus kochi, *Cratognathodus posterognathus*, *Gladigondolella tethydis*, *Gondolella bulgarica*, *Gondolella constricta*, *Gondolella excelsa*, *Gondolella mombergensis*, *Gondolella navicula*, *Gondolella regale*, *Gondolella timorensis*, *Nicoraella germanica*		
Bisti	Middle to Upper Triassic (late Anisian to Carnian)	26, 30
Cratognathodus kochi, *Cratognathodus posterognathus*, *Gladigondolella tethydis*, *Gondolella* aff. *eotrammeri*, *Gondolella bifurcata bifurcata*, *Gondolella bifurcata hanbulogi*, *Gondolella bulgarica*, *Gondolella excelsa*, *Gondolella mombergensis*, *Gondolella navicula*, *Gondolella polygnathiformis*, *Gondolella tadpole*, *Gondolella trammeri*		
Kivotos Island	Upper Triassic (Carnian)	26, 32
Gondolella navicula, *Gondolella polygnathiformis*, *Metapolygnathus nodosus*, *Neogondolella palata*, *Tardogondolella abneptis*		
Petassi Island	Middle to Upper Triassic (late Anisian to Carnian)	26, 32
Apatognathus ziegleri, *Cratognathodus posterognathus*, *Gladigondolella tethydis*, *Gondolella bifurcata*, *Gondolella constricta*, *Gondolella excelsa*, *Gondolella navicula*, *Hindeodella triassica*, *Lonchodina discreta*, *Lonchodina muelleri*, *Neogondolella navicula*, *Neogondolella palata*, *Ozarkodina tortilis*, *Ozarkodina turgida*, *Parachirognathus petraeviridis*, *Prioniodella ctenoides*, *Prioniodella prioniodellides*, *Tardogondolella abneptis*		
Pontikos Island	Upper Triassic (Norian)	26
Metapolygnathus abneptis, *Metapolygnathus bidentatus*		

Locality	Series/stages	Basic references
Chios		
Kambia	Upper Devonian to lower Carboniferous	34
Doliognathus sp., *Hindeodella* sp., *Icriodus alternatus*, *Icriodus symmetricus*, *Palmatolepis delicatula clarki*, *Palmatolepis delicatula delicatula*, *Palmatolepis gracilis gracilis*, *Palmatolepis gracilis sigmoidalis*, *Palmatolepis minuta minuta*, *Palmatolepis perlobata perlobata*, *Palmatolepis quadrantinodosalobata*, *Palmatolepis rugosa postera*, *Palmatolepis rugosa rugosa*, *Palmatolepis rugosa trachytera*, *Palmatolepis tenuipunctata*, *Palmatolepis* sp., *Polygnathus communis*, *Polygnathus* cf. *inortata*, *Polygnathus styriaca*, *Polygnathus vogesi*, *Pseudopolygnathus marburgensis*, *Pseudopolygnathus micropunctata*, *Scaphignathus velifera*, *Siphonodella obsoleta*, *Spathognathodus inortatus*, *Spathognathodus stabilis*		
Keramos	Upper Devonian	34
Gnathodus bilineatus, *Gnathodus commutatus commutatus*, *Gnathodus commutatus nodosus*, *Gnathodus delicatus*, *Gnathodus girtyi*, *Gnathodus semiglaber*, *Palmatolepis glabra glabra*, *Palmatolepis glabra penctinata*, *Palmatolepis gracilis gracilis*, *Palmatolepis perlobata perlobata*, *Palmatolepis rugosa* cf. *ampla*, *Palmatolepis rugosa grossi*, *Palmatolepis minuta minuta*		
Kourounia–Nenitouria	Middle to Upper Mississippian (late Visean–Serpukhovian)	35
?*Gnathodus cuneiformis*, *Gnathodus bilineatus*, ?*Gnathodus praebilineatus*, *Pseudognathodus homopunctatus*, *Lochriea commutata*, *Lochriea mononodosa*		
Melanios–Agio Galas	Upper Devonian to lower Carboniferous	34
Ancyrodella sp., *Gnathodus bilineatus*, *Gnathodus bilineatus bilineatus*, *Gnathodus commutatus commutatus*, *Gnathodus commutatus homopunctatus*, *Gnathodus commutatus nodosus*, *Gnathodus delicatus*, *Gnathodus semiglaber*, *Gnathodus texanus*, *Palmatolepis crepida crepida*, *Palmatolepis distorta*, *Palmatolepis gigas*, *Palmatolepis glabra elongata*, *Palmatolepis glabra glabra*, *Palmatolepis glabra pectinata*, *Palmatolepis gracilis gracilis*, *Palmatolepis minuta minuta*, *Palmatolepis perlobata perlobata*, *Palmatolepis perlobata sigmoidea*, *Palmatolepis punctata*, *Palmatolepis quadrantinodosa marginifera*, *Palmatolepis quadrantinodosa* spp., *Palmatolepis* cf. *regularis*, *Palmatolepis rugosa grossi*, *Palmatolepis subperlobata*, *Palmatolepis subrecta*, *Palmatolepis tenuipunctata*, *Polygnathus vogesi*, *Polygnathus* sp., *Siphonodella obsoleta*, *Spathognathodus stabilis*		
Parparia	Upper Devonian to lower Carboniferous	34
Ancyrodella sp., *Gnathodus bilineatus*, *Gnathodus commutatus commutatus*, *Gnathodus commutatus homopunctatus*, *Gnathodus commutatus nodosus*, *Gnathodus delicatus*, *Gnathodus girtyi*, *Gnathodus punctatus*, *Gnathodus semiglaber*, *Gnathodus texanus*, *Palmatolepis crepida crepida*, *Palmatolepis distorta*, *Palmatolepis glabra elongata*, *Palmatolepis glabra glabra*, *Palmatolepis glabra penctinata*, *Palmatolepis gracilis gracilis*, *Palmatolepis minuta minuta*, *Palmatolepis perlobata perlobata*, *Palmatolepis perlobata sigmoidea*, *Palmatolepis proversa*, *Palmatolepis quadrantinodosa inflexa*, *Palmatolepis quadrantinodosa inflexoidea*, *Palmatolepis quadrantinodosa marginifera*, *Palmatolepis quadrantinodosa* spp., *Palmatolepis rhomboidea*, *Palmatolepis rugosa grossi*, *Palmatolepis subrecta*, *Palmatolepis triangularis*, *Pseudopolygnathus dentilineata*, *Pseudopolygnathus triangula triangula*, *Scaliognathus anchoralis*, *Siphonodella obsoleta*, *Spathognathodus strigosus*		

Locality	Series/stages	Basic references
Potamia	Upper Devonian to lower Carboniferous	34
Belodina triangularis, *Gnathodus bilineatus*, *Gnathodus commutatus commutatus*, *Gnathodus commutatus homopunctatus*, *Gnathodus delicatus*, *Gnathodus semiglaber*, *Gnathodus texanus*, *Hindeodella* aff. *equidentata*, *Hindeodella priscilla*, *Hindeodella* sp., *Icriodus* sp., *Neoprioniodus excavatus*, *Ozarkodina typica denckmanni*, *Ozarkodina* sp., *Palmatolepis crepida crepida*, *Palmatolepis delicatula clarki*, *Palmatolepis delicatula delicatula*, *Palmatolepis distorta*, *Palmatolepis* cf. *elongata*, *Palmatolepis glabra elongata*, *Palmatolepis glabra glabra*, *Palmatolepis glabra penctinata*, *Palmatolepis gracilis gracilis*, *Palmatolepis helmsi*, *Palmatolepis minuta minuta*, *Palmatolepis perlobata perlobata*, *Palmatolepis quadrantinodosa inflexoidea*, *Palmatolepis quadrantinodosa marginifera*, *Palmatolepis quadrantinodosalobata*, *Palmatolepis* cf. *regularis*, *Palmatolepis rugosa grossi*, *Palmatolepis subperlobata*, *Palmatolepis subrecta*, *Palmatolepis tenuipunctata*, *Palmatolepis triangularis*, *Paltodus* cf. *recurvatus*, *Paltodus* sp., *Plectospathodus extensus*, *Polygnathus linguiformis linguiformis*, *Polygnathus nodocostata*, *Polygnathus styriaca*, *Scaliognathus anchoralis*, *Spathognathodus steinhornensis* cf. *remscheidensis*		
Amani	Middle to Upper Mississippian (late Visean to Serpukhovian)	36
Gnathodus bilineatus, *Lochriea commutata*, *Lochriea mononodosa*		
Kipouries	Upper Devonian to Carboniferous	34, 37
Amorphognathus sp., *Ancyrodella* sp., *Belodella triangularis*, *Gnathodus bilineatus*, *Gnathodus commutatus commutatus*, *Gnathodus commutatus nodosus*, *Gnathodus* cf. *girtyi*, *Hindeodella equidentata*, *Hindeodella* aff. *equidentata*, *Hindeodella priscilla*, *Hindeodella* aff. *priscilla*, *Icriodus* sp., *Kockelella patula*, *Ligonodina* cf. *salopia*, *Ligonodina silurica*, *Lonchodina* cf. *walliseri*, *Lonchodina greilingi*, *Neoprioniodus bicurvatus*, *Neoprioniodus excavatus*, *Neoprioniodus latidentatus*, *Neoprioniodus multiformis*, *Neoprioniodus* sp., *Oneotodus* sp., *Ozarkodina* cf. *ziegleri*, *Ozarkodina denckmanni*, *Ozarkodina media*, *Ozarkodina* sp., *Palmatolepis* cf. *regularis*, *Palmatolepis distorta*, *Palmatolepis glabra elongata*, *Palmatolepis glabra glabra*, *Palmatolepis glabra pectinata*, *Palmatolepis gracilis gracilis*, *Palmatolepis gracilis sigmoidalis*, *Palmatolepis helmsi*, *Palmatolepis minuta minuta*, *Palmatolepis perlobata perlobata*, *Palmatolepis perlobata sigmoidea*, *Palmatolepis proversa*, *Palmatolepis quadrantinodosa marginifera*, *Palmatolepis quadrantinodosalobata*, *Palmatolepis rugosa postera*, *Palmatolepis rugosa rugosa*, *Palmatolepis rugosa* spp., *Palmatolepis rugosa trachytera*, *Palmatolepis subperlobata*, *Palmatolepis subrecta*, *Palmatolepis tenuipunctata*, *Palmatolepis termini*, *Palmatolepis triangularis*, *Paltodus* cf. *recurvatus*, *Paltodus rotundatus*, *Paltodus* sp., *Plectospathodus extensus*, *Polygnathus linguiformis*, *Polygnathus* cf. *pura*, *Polygnathus* sp., *Pseudopolygnathus dentilineata*, *Spathognathodus bidentatus*, *Spathognathodus inclinatus*, *Spathognathodus pennatus*, *Spathognathodus steinhornensis* cf. *eosteinhornensis*, *Spathognathodus* sp., *Trichonodella excavata*, *Trichonodella inconstans*, *Trichonodella* aff. *symmetrica*		
Volisos	middle Silurian to Devonian	34, 37

Locality	Series/stages	Basic references
Amorphognathus sp., *Gnathodus girtyi*, *Gnathodus punctatus*, *Gnathodus* sp. indet., *Gnathodus texanus*, *Hindeodella equidentata*, *Kockelella patula*, *Lonchodina greilingi*, *Neoprioniodus multiformis*, *Oneotodus* sp., *Ozarkodina media*, *Ozarkodina* cf. *ziegleri*, *Palmatolepis delicatula clarki*, *Palmatolepis delicatula delicatula*, *Palmatolepis glabra glabra*, *Palmatolepis glabra pectinata*, *Palmatolepis gracilis gracilis*, *Palmatolepis minuta minuta*, *Palmatolepis punctata*, *Palmatolepis quadrantinodosa inflexa*, *Palmatolepis quadrantinodosa* spp., *Palmatolepis quadrantinodosalobata*, *Palmatolepis* cf. *regularis*, *Palmatolepis subperlobata*, *Palmatolepis tenuipunctata*, *Palmatolepis triangularis*, *Spathognathodus inclinatus*, *Spathognathodus pennatus*, *Spathognathodus stabilis*, *Trichonodella excavata*		
Katavasi	Upper Devonian to Middle Triassic	34, 36
Enantiognathus ziegleri, *Gladigondolella tethydis*, *Hindeodella equidentata*, *Hindeodella triassica*, *Icriodus* sp., *Ligonodina* cf. *salopia*, *Ligonodina silurica*, *Lonchodina greilingi*, *Lonchodina* aff. *greilingi*, *Lonchodina latidentata*, *Lonchodina spengleri*, *Lonchodina* cf. *walliseri*, *Neogondolella mombergensis*, *Neoprioniodus bicurvatus*, *Neoprioniodus excavatus*, *Neoprioniodus latidentatus*, *Neoprioniodus multiformis*, *Ozarkodina media*, *Ozarkodina saginata*, *Ozarkodina tortilis*, *Ozarkodina turgida*, *Ozarkodina* ? *fisticulata*, *Palmatolepis distorta*, *Palmatolepis glabra elongata*, *Palmatolepis glabra glabra*, *Palmatolepis glabra pectinata*, *Palmatolepis gracilis gracilis*, *Palmatolepis gracilis sigmoidalis*, *Palmatolepis minuta minuta*, *Palmatolepis perlobata perlobata*, *Palmatolepis perlobata sigmoidea*, *Palmatolepis proversa*, *Palmatolepis punctata*, *Palmatolepis quadrantinodosa inflexoidea*, *Palmatolepis quadrantinodosa marginifera*, *Palmatolepis quadrantinodosa* spp., *Palmatolepis rugosa grossi*, *Palmatolepis rugosa postera*, *Palmatolepis rugosa rugosa*, *Palmatolepis rugosa* spp., *Palmatolepis subperlobata*, *Palmatolepis tenuipunctata*, *Paltodus* sp., *Parachirognathus petrae-viridis*, *Plectospathodus extensus*, *Polygnathus nodocostata*, *Polygnathus* sp., *Pseudopolygnathus micropunctata*, *Roundya lautissima*, *Spathognathodus bidentatus*, *Spathognathodus gondolelloides*, *Spathognathodus homeri*, *Spathognathodus inclinatus*, *Spathognathodus steinhornensis* cf. *eosteinhornensis*, *Trichonodella excavata*, *Trichonodella* aff. *excavata*, *Trichonodella inconstans*, *Trichonodella* aff. *symmetrica*		
Kardamyla	Silurian (Wenlock to Ludlow)	38
Ancoradella ploeckensis, *Carniodus carinthiacus*, *Carniodus* cf. *carnulus*, *Hindeodella equidentata*, *Kockelella variabilis*, *Ligonodina salopia*, *Ligonodina silurica*, *Lonchodina greilingi*, *Lonchodina walliseri*, *Neoprioniodus excavatus*, *Neoprioniodus latidentatus*, *Neoprioniodus multiformis*, *Neoprioniodus subcarnus*, *Ozarkodina crassa*, *Ozarkodina media*, *Ozarkodina ziegleri ziegleri*, *Ozarkodina* sp., *Plectospathodus extensus*, *Polygnathoides emarginatus*, *Polygnathoides siluricus*, *Spathognathodus inclinatus inclinatus*, *Spathognathodus pennatus pennatus*, *Trichonodella excavata*, *Trichonodella inconstans*, *Trichonodella* sp.		
Kardamyla	Upper Devonian (Famennian)	38, 39
Bispathodus stabilis, *Palmatolepis distorta*, *Palmatolepis glabra glabra*, *Palmatolepis glabra pectinata*, *Palmatolepis gracilis gracilis*, *Palmatolepis gracilis sigmoidalis*, *Palmatolepis minuta minuta*, *Palmatolepis perlobata schindewolfi*, *Palmatolepis perlobata sigmoidea*, *Palmatolepis quadrantinodosa inflexa*, *Palmatolepis quadrantinodosa marginifera*, *Polygnathus communis*, *Polygnathus vogesi*, *Polygnathus* sp., *Pseudopolygnathus marburgensis*		

Locality	Series/stages	Basic references
Metochi–Megali Rachi	Lower to Middle Triassic (Olenekian to Anisian)	37
Enantiognathus ziegleri, *Gladigondolella tethydis*, *Hibbardella* sp., *Hindeodella bitorta*, *Hindeodella triassica*, *Lonchodina latidentata*, *Lonchodina muelleri*, *Lonchodina venusta*, *Neogondolella mombergensis*, *Ozarkodina* cf. *kockeli*, *Ozarkodina* sp., *Roundya* sp., *Spathognathodus gondolelloides*, *Spathognathodus homeri*		
Anavatos	Lower to Middle Triassic (Olenekian to Ladinian)	40
Apatognathus radiatus, *Enantiognathus ziegleri*, *Eurygnathodus costatus*, *Gladigondolella carinata*, *Gladigondolella tethydis*, *Hindeodella bitorta*, *Hindeodella multihamata*, *Hindeodella raridenticulata*, *Hindeodella triassica*, *Hindeodella* sp., *Lonchodina muelleri*, *Lonchodina spengleri*, *Lonchodina venusta*, *Neogondolella aegea*, *Neogondolella mombergensis*, *Neogondolella navicula*, *Neoprioniodus* cf. *bicuspidatus*, *Ozarkodina* ? *fisticulata*, *Ozarkodina tortilis*, *Ozarkodina turgida*, *Parachirognathus petrae-viridis*, *Prioniodella pectiniformis*, *Prioniodina kochi*, *Roundya lautissima*, *Roundya* sp., *Spathognathodus gondolelloides*, *Spathognathodus homeri*, *Spathognathodus* cf. *triangularis*		
Vrontados	Carboniferous	40
Idiognathoides attenatus		
Rema Armenis	Middle Triassic (Anisian to Ladinian)	40
Apatognathus radiatus, *Enantiognathus ziegleri*, *Gladigondolella tethydis*, *Hibbardella* cf. *nevadensis*, *Hibbardella* sp., *Hindeodella multihamata*, *Hindeodella triassica*, *Lonchodina discreta*, *Lonchodina muelleri*, *Lonchodina venusta*, *Neogondolella aegaea*, *Neogondolella mombergensis*, *Neogondolella navicula*, *Ozarkodina kockeli*, *Ozarkodina saginata*, *Ozarkodina tortilis*, *Parachirognathus petrae-viridis*, *Prioniodella ctenoides*, *Prioniodella pectiniformis*, *Prioniodina kochi*, *Prioniodina* cf. *kochi*, *Prioniodina mediocris*, *Roundya magnidentata*, *Roundya* sp., *Spathognathodus gondolelloides*, *Spathognathodus homeri*		
Latomi	Lower to Middle Triassic (Induan to early Anisian)	40
Hindeodella multihamata, *Hindeodella triassica*, *Lonchodina* cf. *muelleri*, *Prioniodella prioniodellides*, *Spathognathodus homeri*		
Agios Markos	upper Carboniferous	40
Apathognathodus sp., *Hibbardella* sp., *Hindeodella* sp., *Lonchodina* sp., *Neoprioniodus* ? sp., *Ozarkodina* sp., *Roundya* sp., *Spathognathodus* sp., *Spathognathodus* sp. aff. *triangularis*		
Kephalovouni	Lower Triassic (Olenekian)	40
Apatognathus radiatus, *Apatognathus* sp., *Gladigondolella carinata*, *Hindeodella bitorta*, *Hindeodella ceweki*, *Hindeodella raridenticulata*, *Hindeodella triassica*, *Lonchodina discreta*, *Lonchodina muelleri*, *Ozarkodina* ? *fisticulata*, *Ozarkodina* cf. *delicatula*, *Ozarkodina saginata*, *Ozarkodina tortilis*, *Ozarkodina turgida*, *Roundya* sp., *Spathognathodus homeri*, *Spathognathodus triangularis*, *Spathognathodus* cf. *triangularis*		

Locality	Series/stages	Basic references
Marathovouno	Lower to Middle Triassic (Induan to Ladinian)	24, 40–44
Anastrophognathus sagittalis, ***Apatognathus mitzopouli***, ***Apatognathus radiatus***, *Apatognathus ziegleri*, ***Ctenognathus chionensis***, ***Gladigondolella carinata***, *Gladigondolella tethydis*, *Gladigondolella triangularis*, *Gondolella regalis*, *Gondolella timorensis*, *Hadrontina* sp., *Hibbardella triassica*, ***Hindeodella bitorta***, ***Hindeodella ceweki***, *Hindeodella multihamata*, *Hindeodella raridenticulata*, ***Hindeodella stoppeli***, *Hindeodella triassica*, *Hindeodella* sp., *Lonchodina* cf. *muelleri*, *Lonchodina discreta*, *Lonchodina muelleri*, *Lonchodina spengleri*, *Lonchodina venusta*, ***Neogondolella aegaea***, *Neogondolella mombergensis*, *Neogondolella navicula*, *Neogondolella regale*, *Neogondolella timorensis timorensis*, *Neospathodus homeri*, *Neospathodus triangularis*, ***Ozarkodina ? fisticulata***, *Ozarkodina saginata*, *Ozarkodina tortilis*, ***Ozarkodina turgida***, *Parachirognathus petrae-viridis*, *Prioniodella ctenoides*, *Prioniodella pectiniformis*, *Prioniodella prioniodellides*, *Prioniodina kochi*, *Prioniodina* cf. *prona*, *Roundya lautissima*, *Roundya* sp., *Spathognathodus* cf. *cristagalli*, ***Spathognathodus gondolelloides***, ***Spathognathodus homeri***, ***Spathognathodus triangularis***		
Marmarotrapeza	Lower to Middle Triassic (Olenekian to Anisian)	13, 40, 45, 46
Gladigondolella carinata, *Gladigondolella malayensis budurovi*, *Gladigondolella tethydis*, *Gondolella aegaea*, *Gondolella jubata*, *Gondolella mombergensis*, *Gondolella regale*, *Gondolella timorensis*, *Hindeodella* sp., *Lonchodina* cf. *muelleri*, *Neospathodus homeri*, *Neospathodus triangularis*, *Ozarkodina ? fisticulata*, *Ozarkodina saginata*, *Polygnathus carinata*, *Polygnathus tethydis*, *Prioniodina kochi*, *Spathognathodus gondolelloides*, *Spathognathodus homeri*, *Spathognathodus triangularis*, *Spathognathodus* cf. *triangularis*		
Agia Anna	middle Silurian to Upper Devonian	47
Belodella sp., *Hindeodella equidentata*, *Ligonodina* sp., *Lonchodina greilingi*, *Lonchodina walliseri*, *Neoprioniodus bicurvatus*, *Ozarkodina denckmanni*, *Paltodus recurvatus*, *Plectospathodus extensus*, *Polygnathoides siluricus*, *Spathognathodus inclinatus*, *Trichonodella symmetrica*		
Agia Anna	Lower Triassic (Olenekian)	40
Apatognathus radiatus, *Enantiognathus ziegleri*, *Hindeodella raridenticulata*, *Hindeodella triassica*, *Lonchodina venusta*, *Ozarkodina ? fisticulata*, *Ozarkodina turgida*, *Roundya* sp., *Spathognathodus homeri*, *Spathognathodus triangularis*		
Parthenis	Middle Devonian	40
Bellodella cf. *triangularis*, *Hibardella* sp., *Lonchodina* sp., *Spathognathodus* cf. *triangularis*		
Parthenis	Lower to Middle Triassic (Olenekian to early Anisian)	40, 48

Locality	Series/stages	Basic references
Apatognathus mitzopouli, *Apatognathus radiatus*, *Apatognathus* sp., *Enantiognathus ziegleri*, *Gladigondolella carinata*, *Hibbardella triassica*, *Hindeodella multihamata*, *Hindeodella* sp., *Hindeodella triassica*, *Lonchodina muelleri*, *Ozarkodina tortilis*, *Ozarkodina turgida*, *Pachycladina* ? sp., *Prioniodella prioniodellides*, *Prioniodina mediocris*, *Roundya magnidentata*, *Roundya meissneri*, *Spathognathodus gondolelloides*, *Spathognathodus homeri*, *Spathognathodus triangularis*		
Korakaris	Middle to Upper Triassic (Anisian to Carnian)	40
Enantiognathus ziegleri, *Gladigondolella tethydis*, *Lonchodina muelleri*, *Neogondolella aegaea*, *Neogondolella navicula*, *Neogondolella palata*, *Ozarkodina saginata*, *Ozarkodina tortilis*, *Prioniodella pectiniformis*, *Prioniodina kochi*, *Roundya* sp., *Spathognathodus gondolelloides*, *Spathognathodus* sp., *Tardogondolella abneptis*		
Agios Georgios Sykousis	Upper Pennsylvanian	40
Gnathodus cf. *noduliferus*, *Gnathodus* cf. *opimus*, *Gnathodus* cf. *roundyi*, *Gnathodus* n. sp., aff. *sicilianus*, *Gnathodus noduliferus*, *Gnathodus wapanuckensis*, *Hadrodontina ?* sp., *Hibbardella* sp., *Hindeodella* sp., *Idiognathoides* cf. *convexus*, *Idiognathoides ouachitensls*, *Idiognathoides* sp. aff. *ouachitensis*, *Ligonodina* ? sp., *Lonchodina* sp., *Ozarkodina delicatula*, *Ozarkodina* sp., *Spathognathodus* sp., *Streptognathodus* ex aff. *elongatus*, *Subbryantodus* sp., *Synprioniodina* sp.		
Corfu		
Foustapidima Cape	Upper Triassic (Carnian)	17
Polygnathus abneptis		
Crete		
Voutas	upper Carboniferous to Middle Triassic	49, 50
Anastrophognathus sagittalis, *Ellisonia* sp., *Enantiognathus petraeviridis*, *Gladigondolella carinata*, *Gladigondolella malayensis*, *Gondolella foliata foliata*, *Gondolella foliata inclinata*, *Gondolella jubata*, *Gondolella orientalis*, *Gondolella planata*, *Gondolella subcarinata*, *Gondolella* sp., *Hadrodontina anceps*, *Hindeodus minutus*, *Icriospathodus collinsoni*, *Metapolygnathus japonicus*, *Neospathodus cristagalli*, *Neospathodus dieneri*, *Neospathodus homeri*, *Neospathodus longiusculus*, *Neospathodus* sp., *Neospathodus triangularis*, *Pachycladina inclinata*, *Pachycladina longispinosa*, *Pachycladina symmetrica*, *Xaniognathus turgidus*, *Xaniognathus* sp.		
Sfinari	upper Carboniferous to Triassic	51
Cavusgnathus sp., *Gladigondolella malayensis*, *Gnathodus angustus*, *Gondolella* sp. ex aff. *G. auriformis*, *Gondolella denuda*, *Gondolella intermedia*, *Gondolella laevis*, *Gondolella nepalensis*, *Gondolella tadpole*, *Gondolella* sp., *Hindeodus minutus*, *Idiognathodus tersus*, *Idiognathodus togashii*, *Idiognathoides sinuatus*, *Metapolygnathus abneptis*, *Metapolygnathus mirautae*, *Metapolygnathus* sp., *Neognathodus bassleri*, *Neognathodus* sp., *Neognathodus symmetricus*, *Neospathodus homeri*, *Pachycladina* sp., *Spathognathodus orphanus*, *Streptognathodus elegantulus*, *Streptognathodus gracilis*, *Streptognathodus ruzhencevi*, *Streptognathodus* sp.		
Kambos	upper Carboniferous to Triassic	51

Locality	Series/stages	Basic references
Ellisonia sp., *Furnishius triserratus*, *Neospathodus dieneri*, *Neospathodus longiusculus*, *Neospathodus waageni*, *Pachycladina longispinosa*, *Pachycladina* sp., *Pachycladina symmetrica*		
Paleochora	upper Carboniferous to Triassic	51
Neospathodus homeri, *Ellisonia* sp.		
Skafi	upper Carboniferous to Triassic	51
Neospathodus sp., *Neospathodus homeri*		
Myrsini	lower Permian to Lower Triassic	52
Cypridodella sp., *Diplognathodus* sp., *Ellisonia* sp., *Enantiognathus* sp., *Eurygnathodus costatus*, *Eurygnathodus paracostatus*, *Gondolella asiatica*, *Gondolella gujioensis*, *Gondolella idahoensis*, *Gondolella intermedia*, *Gondolella planata*, *Gondolella* sp., *Hindeodus minutus*, *Hindeodus* sp., *Iranognathus* sp., *Neohindeodella triassica*, *Neospathodus cristagalli*, *Neospathodus dieneri*, *Neospathodus pakistanensis*, *Neospathodus waageni*, *Neospathodus* sp., *Ozarkodina sweeti*, *Ozarkodina* sp., *Prioniodina mitzopouli*, *Prioniodina* sp., *Sweetognathus bogolovskajae*		
Skopi	Lower to Middle Triassic (Olenekian to Anisian)	52
Diplododella bidentata, *Ellisonia* sp., *Enantiognathus bitortus*, *Gladigondolella carinata*, *Gondolella* ? *timorensis*, *Neohindeodella* sp., *Neospathodus homeri*, *Neospathodus* cf. *homeri*, *Neospathodus* cf. *triangularis*, *Neospathodus* sp., *Ozarkodina turgida*, *Ozarkodina* sp.		
Tripokefala	Lower to Middle Triassic (Olenekian to Anisian)	52
Anastrophognathus sagittalis, *Enantiognathus bitortus*, *Ellisonia* sp., *Enantiognathus* sp., *Gladigondolella tethydis*, *Gondolella bulgarica*, *Gondolella* cf. *regalis*, *Neohindeodella* sp., *Neospathodus homeri*, *Ozarkodina tortilis*, *Ozarkodina turgida*, *Prioniodina (Cypridodella) muelleri*		
Ziros	Upper Triassic	53
Conodont fragments indet.		

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