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Albian bivalves from Madiela Formation in north Gabonese coastal basin

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Abstract – A study of Albian bivalves from Madiela Formation in north of Gabonese coastal basin has been carried out from N'Toum quarry geological section. Four genera including six species are identified: *Liopistha (Psilomya)* sp. 1, *? Liopistha (Psilomya)* sp. 2, *Megaporomya* sp., *Neithea (Neithea) dutrugei* (Coquand, 1862), *Pleuromya* sp. 1 and *Pleuromya* sp. 2. One morphotype is identified as Bivalvia gen. et sp. indet. The genus *Megaporomya* Ayoub-Hannaa *et al.*, 2013 and all identified species, except *Neithea (Neithea) dutrugei* (Coquand, 1862), are found for the first time in Gabonese coastal basin. Now, a total of twelve species of bivalves have been reported from the Madiela Formation. In Gabon, the presence for the first time of genera *Liopistha* and *Pleuromya* in N'Toum quarry geological section which is assigned to the Albian permits us to expand their geographical distribution until N'Toum region, and their age range to Albian.

Keywords: Albian / Madiela Formation / bivalves / Gabonese coastal basin

Résumé – Les bivalves albiens de la Formation du Madiela dans le bassin côtier nord-gabonais. Une étude portant sur les bivalves de la Formation du Madiéla dans le bassin côtier nord gabonais a été menée à partir de la coupe de la carrière de N'Toum. Quatre genres incluant six espèces ont été identifiés : *Liopistha (Psilomya)* sp. 1, *? Liopistha (Psilomya)* sp. 2, *Megaporomya* sp., *Neithea (Neithea) dutrugei* (Coquand, 1862), *Pleuromya* sp. 1 et *Pleuromya* sp. 2. Un morphotype est identifié comme Bivalvia gen. et sp. indet. Le genre *Megaporomya* Ayoub-Hannaa *et al.*, 2013 et l'ensemble des espèces identifiées, à l'exception de *Neithea (Neithea) dutrugei* (Coquand, 1862), sont trouvés ici pour la première fois dans le bassin côtier gabonais. On dénombre actuellement douze espèces de bivalves dans la Formation du Madiéla. Au Gabon, les distributions stratigraphique et géographique des genres *Liopistha* et *Pleuromya* sont étendues respectivement jusqu'à l'Albien et dans la région de N'Toum.

Mots clés : Albien / Formation du Madiela / bivalves / bassin côtier gabonais

1 Introduction

The Gabonese coastal basin is one of the West Africa coastal basins which extend from Cameroon to Angola-Namibia and contains sediments with different geological stories. The tectonic and sedimentary evolution (Mbina Mounguengui, 1998; Mbina Mounguengui *et al.*, 2002; Mbina Mounguengui and Lang, 2003) allow to recognize three phases: a prerift phase (Precambrian-Jurassic), a rift phase (Neocomian-Barremian) and a drift phase (Aptian-present). Prerift and rift phases are characterized mainly by continental, lacustrine and fluvial sediments whereas the drift phase is characterized by marine sediments.

The drift phase contents several formations. Among these, there is the Madiela Formation (Albian) which occurs in N'Toum region. The stratigraphical framework, together with the palaeontological value of the Madiela Formation have been discussed by several authors such as: Choubert (1935), Hourcq and Hausknecht (1954), Dartevelle and Brébion (1956), Dartevelle and Freneix (1957), Hudeley and Belmonte (1970), Teisserenc and Villemin (1990), Chevalier *et al.* (2002), Musavu Moussavou and Mabicka Obame (2015). Systematic descriptions of the bivalve fauna from the Madiela Formation have been carried out only by Dartevelle and Freneix (1957). Other authors listed and mentioned only the presence of this fauna without descriptions and illustrations. Six species have been reported from the Madiela Formation of Gabon namely: *Lopha* (?) *dieneri* (Blanckenhorn, 1890), *Panopea* cf. *gurgites* d'Orbigny, 1844, *Pinna decussata* Goldfuss, 1837, *Pseudolimea neglecta* (Tate *in* Dartevelle and Freneix, 1957), *Pterotrigonia scabra* (Lamarck, 1819) and *Neithea shawi* Pervinquière, 1912 (=*Neithea (Neithea) dutrugei* (Coquand, 1862) herein).

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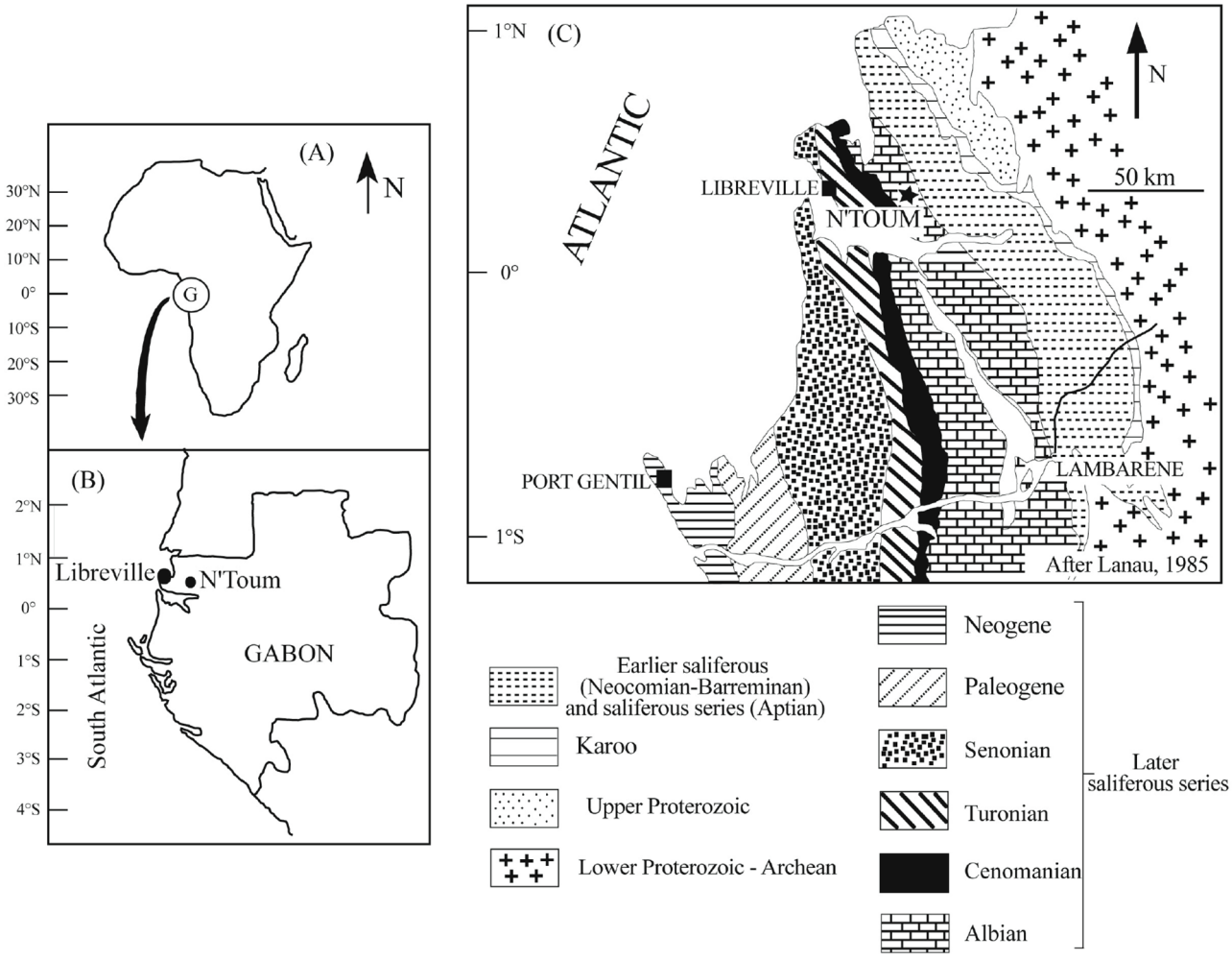

Fig. 1. Location map of Gabon (A) and N'Toum locality (B) and geological map of north Gabonese coastal basin (C). Geological map after Lanau (1985).

The aim of this study is to:
- provide, after half a century, systematic descriptions;
- present the new diversity;
- discuss the distribution and stratigraphy of the bivalve fauna from the Madiela Formation based on new data from N'Toum quarry section.

2 Geological setting

The Madiela Formation overlies the Ezanga Formation (Aptian) and is in turn overlain by the Cap Lopez Formation (Cenomanian) throughout most of the coastal basin of Gabon, with a maximum thickness of 2050 m (Teisserenc and Villemin, 1990). In the eastern part of the basin, the Madiela Formation occupies the centre of the graben and was deposited in a marine to deltaic environment (Chevalier *et al.,* 2002). It is composed of dolomitized carbonates, shales, clays, silts, sandstones and marls. In the western part of the basin, the Madiela Formation consists of shales and carbonaceous shales (Teisserenc and Villemin, 1990; Chevalier *et al.,* 2002). From a paleontological point of view, the Madiela Formation includes foraminifera, ostracods, gastropods, ammonites, calcareous nannofossils, bivalves and echinoids (Choubert, 1935; Hourcq, 1952; Dartevelle and Brébion, 1956; Dartevelle and Freneix, 1957; Hudeley and Belmonte, 1970; Grosdidier, 1979; Dupont, 1996; Chevalier *et al.,* 2002; Musavu Moussavou and Mabicka Obame, 2015).

The N'Toum quarry geological section (Figs. 1 and 2) is located at N'Toum locality, which is situated at 40 km of Libreville at GPS coordinates 0°58'42.9"N, 9°41'58.49'E. It is 10 m thick and composed of beige, light grey limestones intercalated with dark marls. Texture of limestones and marls is mudstone to packstone. The deposits, which contain plant debris, gastropods, ostracods, ammonites, echinoderms and bivalves, are assigned to Albian age by their ammonite fauna (Hourcq and Hausknecht, 1954; Hudeley and Belmonte, 1970) such as *Douvilleiceras monile* (Sowerby, 1816) and *D. mamillatum* (Schlotheim, 1813).

3 Material and methods

The material for this study comprises 16 specimens from N'Toum quarry section. In general, all specimens are preserved as internal moulds. Some specimens are laterally deformed due to compaction.

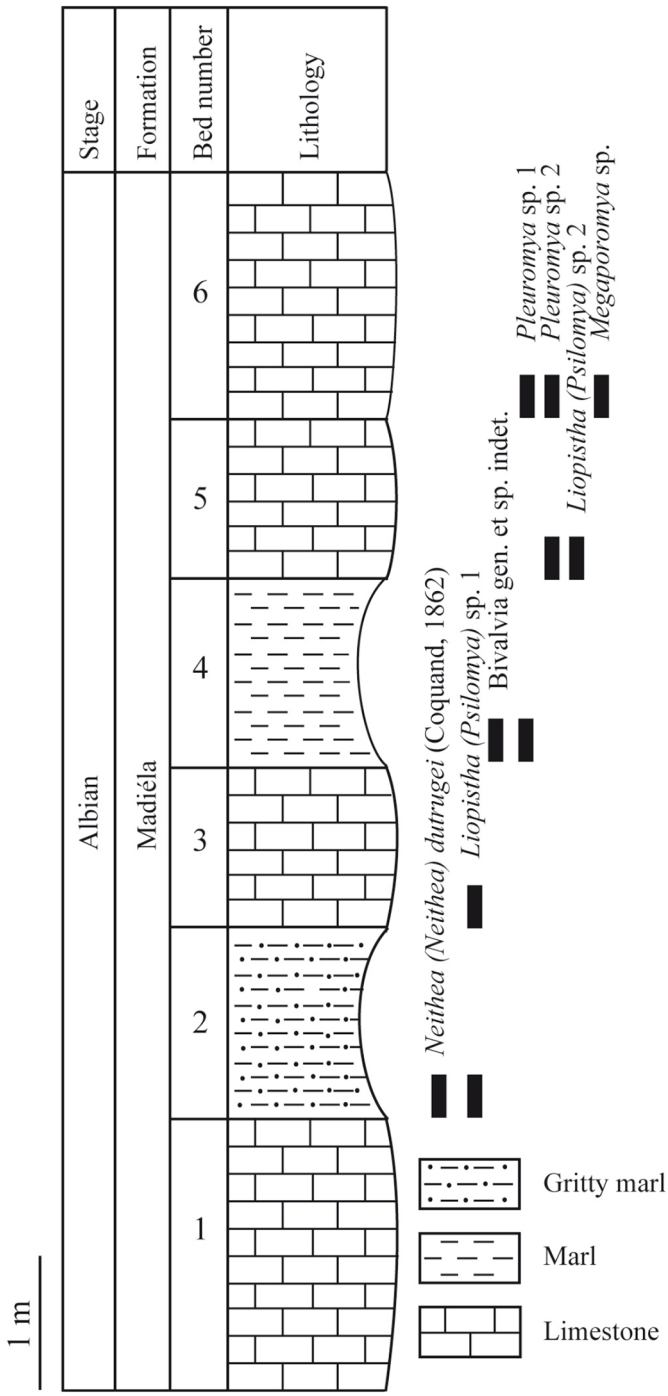

Fig. 2. Lithostratigraphy of the N'Toum quarry section indicating the occurrence of bivalves fauna.

Linear measurements are in millimeters. Abbreviations of measured parameters: L: shell length; H: shell height; W: width of articulated valves.

The systematic classification follows that of Carter *et al.* (2011). The morphological terminology follows the glossary of Cox (1969) in the Treatise on Invertebrate Paleontology.

The material is deposited at the collection of the Geology Department, Faculty of Sciences Masuku University of Franceville (Gabon), under collection number MDG/GBN/Lm.

Here we describe species which are mentioned for the first time in the Albian of the Gabonese coastal basin.

4 Systematic palaeontology

Order Pectinida Gray, 1854
Superfamily Pectinoidea Rafinesque, 1815
Family Pectinidae Rafinesque, 1815
Genus *Neithea* Drouet, 1824
Type species *Pecten aequicostatus* Lamark, 1819

Diagnosis. Shell equivalved, equilateral to asymmetrical, auriculated; rihgt valve more convex than left valve ended by umbo; hing with two diverging, transversal striated cardinal teeth; equal or nearly aqual radial ribs (Drouet, 1824 enlarged by Dhondt, 1973).

Species included. Pecten aequicostatus Lamark, 1819, *Pectinites regularis,* Schlotheim, 1813, *Janira alpina*, D'Orbigny, 1847, *J. dutrugei* Coquand, 1862, *J. tricostata*, Coquand, 1862, *J. hispánica*, D'Orbigny, 1850).

Remarks. In Gabon, this genus is represented only by one species recorded in Aptian (Dartevelle and Freneix, 1957 and this study).

Occurrence. Cretaceous (Neocomian – Senonian).

Subgenus *Neithea* Drouet, 1824
Type species. *Pecten aequicostatus* Lamark, 1819

Neithea (Neithea) dutrugei (Coquand, 1862)
Fig. 3.4

1862 *Janira dutrugei* sp. nov. Coquand, p. 219, pl. 13, figs. 1-2.

1918 *Pecten (Neithea) dutrugei* (Coquand): Greco, p. 24, pl. 3(19), figs. 7-9.

1934 *Pecten (Vola) dutrugei* Coquand: Blanckenhorn, p. 192, pl. 9, fig. 25.

1957 *Neithea shawi* Pervinquière: Dartevelle & Freneix, p. 74, pl. 9, figs. 8-11.

1993 *Neithea (Neithea) dutrugei* (Coquand): Dhondt & Dieni, p. 190, pl. 4, fig. 17, text-fig.4.

2006 *Neithea (Neithea) dutrugei* (Coquand): Perrillat *et al.*, p. 101, figs. 14-16.

2007 *Neithea (Neithea) dutrugei* (Coquand): Mekawy, p. 101, figs. 14-16.

2011 *Neithea (Neithea) dutrugei* (Coquand): Ayoub Hannaa, p. 107, pl. 9, fig. 10, text-fig. 3.12.

Material. 1 specimen from bed 2 (MDG/GBN/Lm – 57.1). It is represented only by its right valve, by preventing any measure of shell width.

Measurements (in mm): L = 20; H = 29.

Remarks. The specimen of this study resembles to species from the Cenomanian of Egypt (Ayoub-Hannaa, 2011 p. 107, p. 9, fig. 10) in outline and in having numerous irregular ribs (both primary and intercalatory ribs).

Occurrence. Upper Cretaceous of North Africa (Coquand, 1862; Greco, 1918; Mekawy, 2007; Ayoub-Hannaa, 2011), Lower Turonian of Jordan (Perrilliat *et al.*, 2006), Cenomanian of Syria, Palestine and Italy (Blanckenhorn, 1934; Dhondt and Dieni, 1993), Albian of Gabon (Dartevelle and Freneix, 1957; this study).

Order PHOLADOMYOIDA Newell, 1965
Superfamily PHOLADOMYOIDEA King, 1844

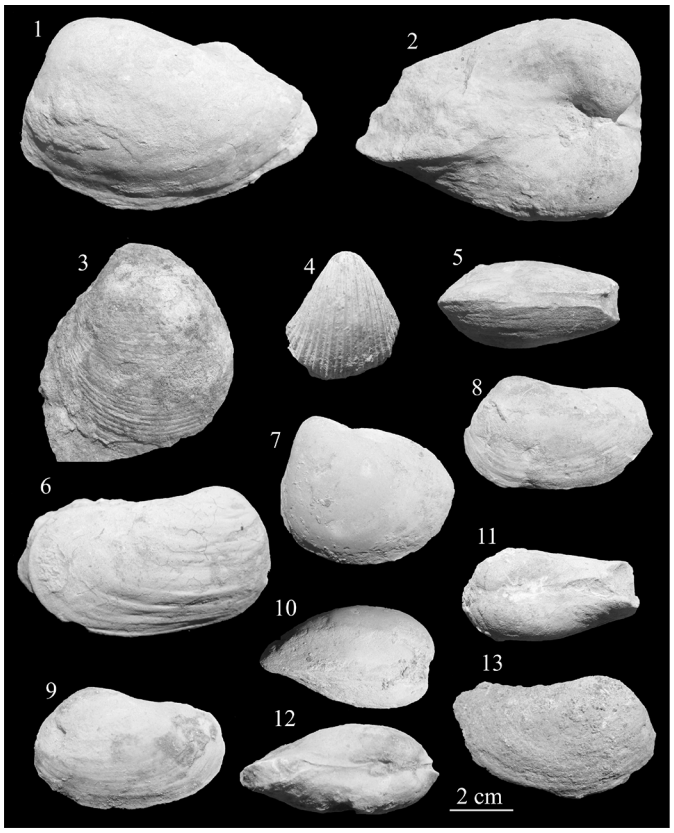

Fig. 3. 1-2, *Megaporomya* sp. (MDG/GBN/Lm – 60.1), left valve in 1: lateral view; 2: dorsal view; 3: Bivalvia gen. et sp. indet. (MDG/GBN/Lm – 63.1), left valve in lateral view; 4: *Neithea (Neithea) dutrugei* (Coquand, 1862) (MDG/GBN/Lm – 57.1), left valve in lateral view; 5, 8, 11: *Pleuromya* sp. 1 6 (MDG/GBN/Lm – 58.1), left valve in 5: ventral view, 8: lateral view, 11: dorsal view; 6, 9, 12: *Pleuromya* sp. 2, 6: right valve (MDG/GBN/Lm – 59.2) in lateral view; 9 and 12: left valve (MDG/GBN/Lm – 59.1) in lateral and dorsal view; 7, 10: *Liopistha* (*Psilomya*) sp. 1 (MDG/GBN/Lm – 61.1), left valve in 7: lateral view; 10: dorsal view; 13: *? Liopistha* (*Psilomya*) sp. 2 (MDG/GBN/Lm – 61.1), right valve in lateral view.

Family Pleuromyidae Zittel, 1895

Genus *Pleuromya* Agassiz, 1842

Type species. *Mya gibbosa* Sowerby, 1823

Diagnosis. Shell of large size, equivalve, oval, elongate, thin, moderately to strongly inflated, with narrow to moderately wide anterior and posterior gape; umbones prosogyrate contiguous, situated toward anterior end of shell; Surface with concentric ribbing (Agassiz, 1842)

Species included. *Pleuromya africana* (Etheridge, 1907), *P. congoensis* Dartevelle and Frenix, 1957.

Remarks. In Gabon, this genus is represented only by species *Pleuromya congoensis* Dartevelle and Freneix, 1957 recorded in Turonian of Libreville (Dartevelle and Freneix, 1957). Here, it is found for the first time in Aptian.

Occurrence. Trias to Coniacian

Pleuromya sp. 1

Fig. 3.5, 3.8, 3.11

Material. 3 specimens from beds 4 and 6 (MDG/GBN/Lm – 58.1 to 58.3).

Measurements (in mm): L = 42-53 (mean = 47.5); H = 26–28 (mean = 27); W = 20–26 (mean = 23).

Description. Shell large, elongate-ovate, strongly inequilateral, equivalved, little inflated. Maximum inflation slightly below umbonal area, decreasing gradually towards posterior end. Umbonal area wide and inflated. Beaks prominent, prosogyrate, situated one-fourth of the total valve length from the anterior end. Anterior and posterior margins rounded, joining ventral margin in rounded angle. No lunule. Antero-dorsal margin truncated obliquely, joining anterior margin in acute angle. Postero-dorsal margin slightly concave. Posterior end wadely gaping. This gap extends until postero-ventral margin where becomes narrow. Ventral margin straight to sighlty convex. Ornament consisting of fine, commarginal folds separated by regular interspaces. Ribs erasing towards umbonal area.

Remarks. Pleuromya sp. 1 shows some similarities to *Pleuromya ligeriensis* (d'Orbigny, 1845) from the upper Cenomanian–lower Turonian of Sergipe, Brazil (Ayoub-Hannaa *et al.*, 2013, p. 50, figs. 11I-J) in general outline and in having fine commarginal folds but differs in lacking fine commarginal folds towards umbonal area and in having gap in postero-ventral margin.

P. congoensis Dartevelle and Freneix, 1957 from the Turonian of Gabon and Cenomanian to Maastrichtian of Democratic Republic of Congo (Dartevelle and Freneix, 1957, p. 208, pl. 32, figs. 9-10; pl. 33, figs; 1-2) differs in having narrow gap both posteriorly and anteriorly.

Occurrence. Albian of Gabon (this study). In Gabon, this species is found for the first time.

Pleuromya sp. 2
Fig. 3.6, 3.9, 3.12
Material. 4 specimens from beds 5 and 6 (MDG/GBN/Lm − 59.1 to 59.4).
Measurements (in mm): L = 30–44 (mean = 38.5); H = 19–28 (mean = 23.5); W = 14–22 (mean = 18).
Description. Shell large, elongate-ovate to oblong, strongly inequilateral, nearly equivalved, inflated. Maximum inflation slightly below umbonal area, decreasing gradually towards posterior end. Umbonal area wide and inflated. Beaks prominent, prosogyrate, situated one-fourth of the total valve length from the anterior end. Anterior and posterior margins rounded, joining ventral margin in nearly rounded angle. No lunule. Antero-dorsal margin short, straight, joining anterior margin in rounded angle. Postero-dorsal margin straight. Anterior and posterior margins slightly gaping. Ornament consisting of fine commarginal folds.
Remarks. Pleuromya sp. 2 differs with *Pleuromya* sp. 1 in having anterior and posterior margins slightly gaping.
Occurrence. Albian of Gabon (this study). In Gabon this species is found for the first time.

Superfamily POROMYOIDEA Dall, 1886
Family POROMYIDAE Dall, 1886
Genus *Megaporomya* Ayoub-Hannaa *et al.,* 2013
Type species. *Megaporomya reymenti* Ayoub-Hannaa *et al.*, 2013
Diagnosis. Thin-shelled, large to very large; variable in outline; strongly inflated anteriorly (cordate in cross-section), posteriorly elongate and compressed; umbones wide, strongly convex, enrolled; posterior siphonal gape wide; anisomyarian with shallow pallial sinus; hinge of right valve consisting of one large, inverted, U-shaped cardinal tooth, one straight and narrow cardinal tooth and two unequal sockets; hinge of left valve with two unequal teeth and sockets (Ayoub-Hannaa *et al.*, 2013).
Species included. Megaporomya reymenti Ayoub-Hannaa *et al.*, 2013.
Remarks. Megaporomya has been erected by Ayoub-Hannaa *et al.* (2013) within Upper Turonian of Sergippe basin (Brazil). It is found here for the first time in Gabonese coastal basin.
Occurrence. Upper Albian of Morrocco (Benzaggagh, 2016); Upper Turonian of Brazil (Ayoub-Hannaa *et al.*, 2013)

Megaporomya sp.
Fig. 3.1-2
Material. 2 specimens from bed 5 (MDG/GBN/Lm − 60.1 to 60.2).
Measurements (in mm): L = 89; H = 46; W = 63.
Description. Shell very large, elongate-ovate, globular, wider than high, slightly equivalved, strongly inequilateral, strongly inflated, slightly compressed posteriorly. Maximum inflation below the umbonal area. Umbonal area wide and strongly convex. Beaks large, prominent, slightly incurved anteriorly and situated approximately one-third of the total valve length from the anterior end. Anterior umbonal round ridge well-developed, extending from umbonal area to middle of anterior margin, forming boundary of shallow depression on anterior part. Anterior margin short, slightly convex, meeting the ventral margin in a blunt, nearly right angle. Posterior margin obliquely truncated, forming an acute angle with the ventral margin. Posterior end strongly gaping. Antero-dorsal margin straight, meeting the anterior margin in a rounded angle. Postero-dorsal margin straight to slightly convex, slightly sloping, forming an obtuse angle with the posterior margin. Ventral margin slightly convex. Ornamentation consisting of two strong commarginal ribs widely interspaced towards ventral margin.
Remarks. Megaporomya reymenti Ayoub-Hannaa *et al.* (2013) from Upper Turonian of Sergippe, Brazil resembles this species in outline and form and position of beaks but differs in lacking two strong commarginal folds widely interspaced towards ventral margin.
Occurrence. Albian of Gabon (this study). In Gabon, this species is found for the first time.
Genus *Liopistha* Meek, 1864

Type species *Cardium elegantulum* Roemer, 1852.
Diagnosis. Thin-shelled, ovate, posterior end somewhat attenuate; hinge with two cardinal teeth, no laterals; ligament external; pallial area indistinct (Keen *in* Newell, 1969).
Species included. L. (Liopistha) hourcqui Dartevelle and Freneix, 1957*, L. (L.) ventricosa* Koenen, 1897.
Remarks. In Gabon, this genus is represented by three species recorded in Senonian of Mikominzem, Gomé W and Cabane T17 (Dartevelle and Freneix, 1957).
Occurrence. Early to Late Cretaceous.

Subgenus *Psilomya* White, 1874
Type species. *Liopistha* (*Psilomya*) *meekii* White, 1874

Liopistha (*Psilomya*) sp. 1
Fig. 3.7, 3.10
Material. 2 specimens from beds 2 and 3 (MDG/GBN/Lm − 61.1 to 61.2).
Measurements (in mm): L = 28–33 (mean = 30.5); H = 22–28 (mean = 24); W = 15–20 (mean = 17.5).
Description. Shell medium to large-sized, subtrigonal to transversely oblong, inequilateral, slightly inequivalved, strongly compressed posteriorly, moderately inflated with maximum inflation slightly below umbonal area. Umbonal area broad and slightly convex. Beaks prominent, elevated above hinge line, sharply pointed, prosogyrate, situated approximately one-fourth of the total valve length from the anterior end. Anterior umbonal ridge well-developed, extending from umbonal area to anterior end, forming boundary of deep depression on anterior part. Posterior umbonal ridge well-developed. Anterior end short slightly rounded, joining ventral margin in rounded curve. Posterior end elongate. No posterior gap. Anterodorsal margin short, straight, joining anterior end in obtuse angle. Postero-dorsal margin straight to slightly concave, gradually sloping towards posterior margin. Ventral margin broadly rounded. Shell smooth.
Remarks. This species shows some similarities to *Liopistha* (*Psilomya*) *concentrica* Stanton, 1894 from the upper Cenomanian–lower Turonian of Sergipe, Brazil (Ayoub-Hannaa *et al.*, 2013, p. 56, figs. 11M-N) in general outline, size and lacking radial ribbing but differs in being more inflated (W/L = 0.56 on average as opposed to 0.42) and in lacking regular growth rugae.

L. (Liopistha) hourcqui Dartevelle and Freneix, 1957 from the Senonian of Gabon (Dartevelle and Freneix, 1957, p. 218, pl. 33, fig. 10) differs in having radial ribs.

Occurrence. Albian of Gabon (this study).

? Liopistha (*Psilomya*) sp. 2

Fig. 3.13

Material. 2 specimens from bed 5 (MDG/GBN/Lm − 62.1 to 62.2).

Measurements (in mm): L = 42–48 (mean = 45); H = 23–30 (mean = 26.5); W = 18–22 (mean = 20).

Description. Shell large-sized, elongate-ovate, strongly inequilateral, slightly inequivalved, strongly compressed posteriorly, moderately inflated with maximum inflation slightly below umbonal area. Umbonal area broad and slightly convex. Beaks prominent, elevated above hinge line, prosogyrate, situated approximately one-third of the total valve length from the anterior end. Escutcheon narrow, elongate and shallow. Anterior end short slightly rounded, joining ventral margin in rounded curve. Posterior end elongate. No posterior gap. Anterodorsal margin short, straight, steeply sloping towards anterior margin. Postero-dorsal margin straight to slightly concave. Ventral margin rounded. Ornament consisting of weak irregular commarginal folds.

Remark. By its strongly compressed posterior end and well-developed prosogyrate beaks, specimens recorded herein resembles to *Liopistha* (*Psilomya*) genus to which it is questionably assigned because of the absence of less-developed radial ornament. It differs from *Liopistha* (*Psilomya*) *concentrica* Stanton, 1894 in having elongate ovate shell and weak irregular commarginal ribs. *? Liopistha* (*Psilomya*) sp. shows similarities with *Liopistha* (*Psilomya*) *elongata* Stanton, 1894 but differs in lacking faint axial tubercles.

Occurrence. Albian of Gabon (this study). In Gabon, this species is found for the first time.

Bivalvia gen. et sp. indet.

Fig. 3.3

Material. 2 specimens from bed 4 (MDG/GBN/Lm − 63.1 to 63.2). They are represented by their left valve, by preventing any measure of shell width.

Measurements (in mm): L = 56; H = 65.

Description. Shell large-sized, subtrapezoidal, inequilateral, inflattened, with well-marked dorsal areas. Beack prominent, prosogyrate, placed anterior, slightly incurved. Anterodorsal margin strongly to weakly concave; posterodorsal weakly convex. Anterior margin rounded in outline. Posterior margin evenly rounded, passing smoothly into weakly convex ventral margin. Inflation located at around 30% of height below dorsal extremity of umbones. Ornamentation consisting of spaced concentric lamellae. Area smoother than remainder of disc.

Remark This morphotype shows some similarities to genus *Lucina* Bruguière, 1797 in general outline and in having dorsal area and concentric lamellae but the poor preservation doesn't permit to distinguish ligament, hinge and muscle scars which are others capital characters form this genus.

Occurrence. Albian of Gabon (this study).

5 Discussion

5.1 Diversity and abundance

The bivalve fauna recorded from the N'Toum quarry geological section is composed of seven species including five genera and four families (Fig. 2). Bivalve faunas previously described and illustrated from the Madiela Formation (Choubert, 1935; Hourcq, 1943; Dartevelle and Brébion, 1957) differ with the one described from N'Toum quarry geological section herein. The particularity of the latter one is the presence of *Liopistha (Psilomya)* sp. 1, *? Liopistha (Psilomya)* sp. 2, *Megaporomya* sp., *Pleuromya* sp. 1, *Pleuromya* sp. 2 and Bivalvia gen. et sp. indet. Now, a total of twelve species of bivalves have been reported from the Madiela Formation.

From the abundance point of view, the bivalve fauna from N'Toum quarry geological section is characterized by low abundance. Only 15 specimens have been recorded. This fauna is dominated by representatives of Pleuromyidae Zittel, 1895 and Poromyidae Dall, 1886 families with respectively 7 and 6 specimens. The other families are represented by one or two specimens. At a generic level, only *Pleuromya* has more five specimens.

5.2 Distribution and stratigraphy

From Gabon, the genera *Liopistha* and *Pleuromya* are only known respectively within the Senonian and Turonian (Dartevelle and Freneix, 1957). The N'Toum quarry geological section, which is assigned to the Albian, provides representatives of the genera *Liopistha* and *Pleuromya*. Their presence permits us herein to expand their geographical distribution until N'Toum regions, and their age range to Albian.

The genus *Megaporomya*, erected by Ayoub-Hannaa *et al.* (2013) in upper Turonian of Brazil, has been recorded in Albian of Morrocco (Benzaggagh, 2016). In Gabon, this is the first record of this genus.

6 Conclusion

The study of Albian bivalves from the Madiela Formation from N'Toum quarry geological section reveals the following conclusions:

- in comparison with previous studies of bivalve fauna from the Albian Madiela Formation, bivalves from N'Toum quarry section differ on its systematic content;
- the fauna of N'Toum quarry geological section is dominated by representatives of Pleuromyidae Zittel, 1895 and Poromyidae Dall, 1886 families;
- in Gabon, the stratigraphic and geographic range of *Liopistha* and *Pleuromya* genera are extended into Albian and N'Toum region respectively;
- *Megaporomya* genus is recorded herein for the first time in the Gabonese coastal basin.

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