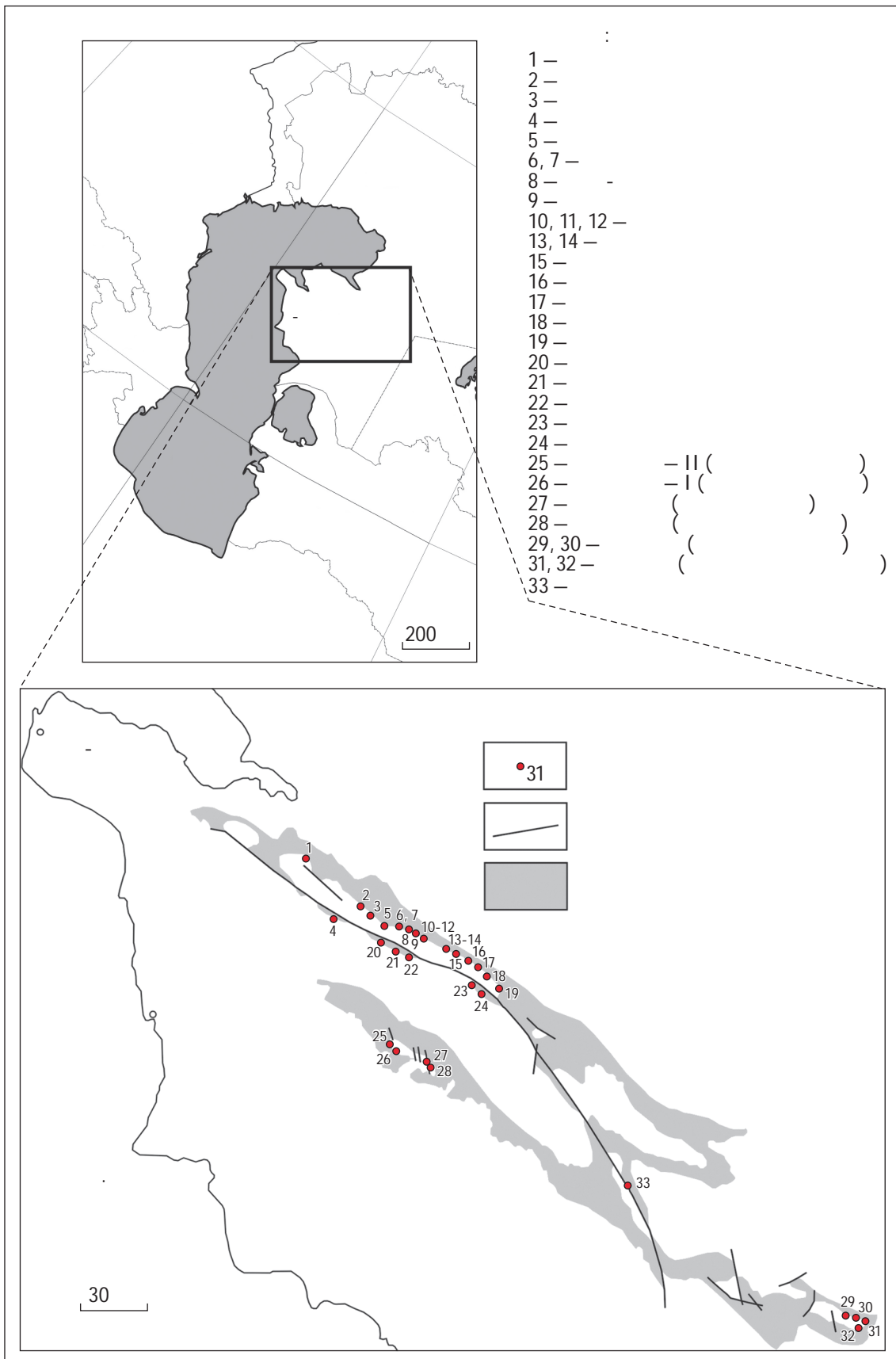


... 1983; ... 1988),
 : Neocosmoceras Septaliphoria semenovi, Bu-
 chia volgensis, Riasanites Pygurus rostratus (
 ..., 1988).
 : Buchia keyserlingi, Polyplichites spp.
 Dichotomites sp. (..., 1983).
 (10)
 32 (.1), 200 Isognomon sp.,
 :
 ().
 " "
 (. 2087).
 (.1).
 ..., 1986). (, 2003, 2007).
 (-)
 ..., 1986; (..., 1983;
 ..., 1988).
 (.1).
 1. Ae-
 tostreon.
 (...,
 1986) A. subsinuatum (Leymerie,
 1842)
 (..., 1983; ..., 1988).
 2. (-
 danovae sp. nov., Gyrostrea bog-



1. (: , 1988; ()) ().

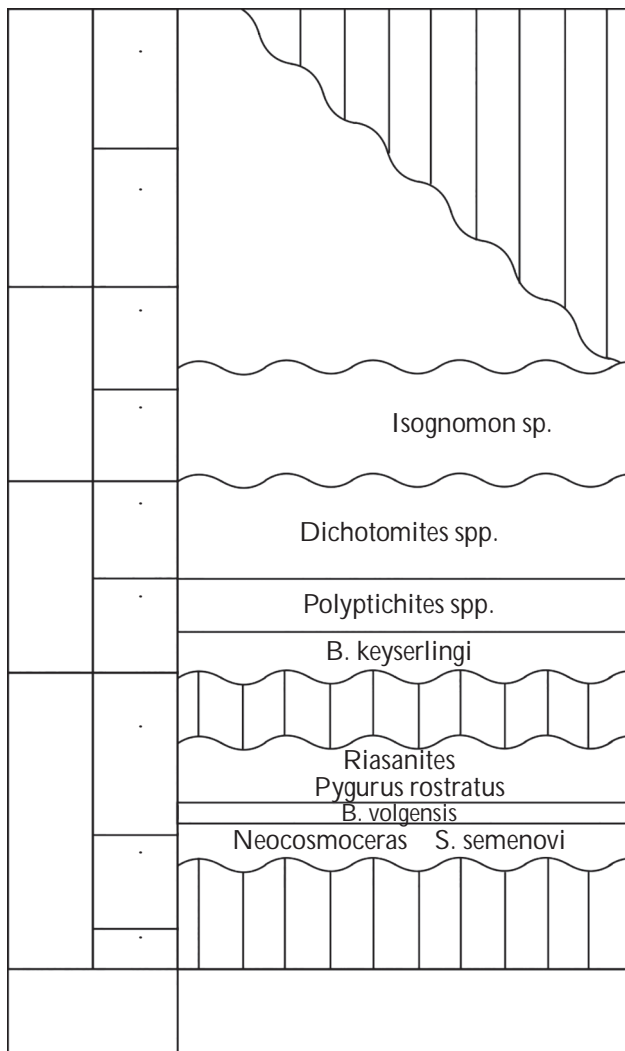


Fig. 2. Stratigraphic column of the ... (...) ... 1986; ...

OSTREOIDEA
RAFINESQUE, 1815
FLEMINGOSTREIDAE STENZEL, 1971

CRASSOSTREINAE SCARLATO
 ET STAROBOGATOV, 1978

Gyrostrea Mirkamalov, 1963

Gyrostrea bogdanovae Kosenko et Metelkin, sp. nov.

ZooBank LSID: urn:lsid:zoobank.org:act:
 897951AF-D9B3-44FA-B365-A7D67D162D42.

2087/4 (... 3, ...);

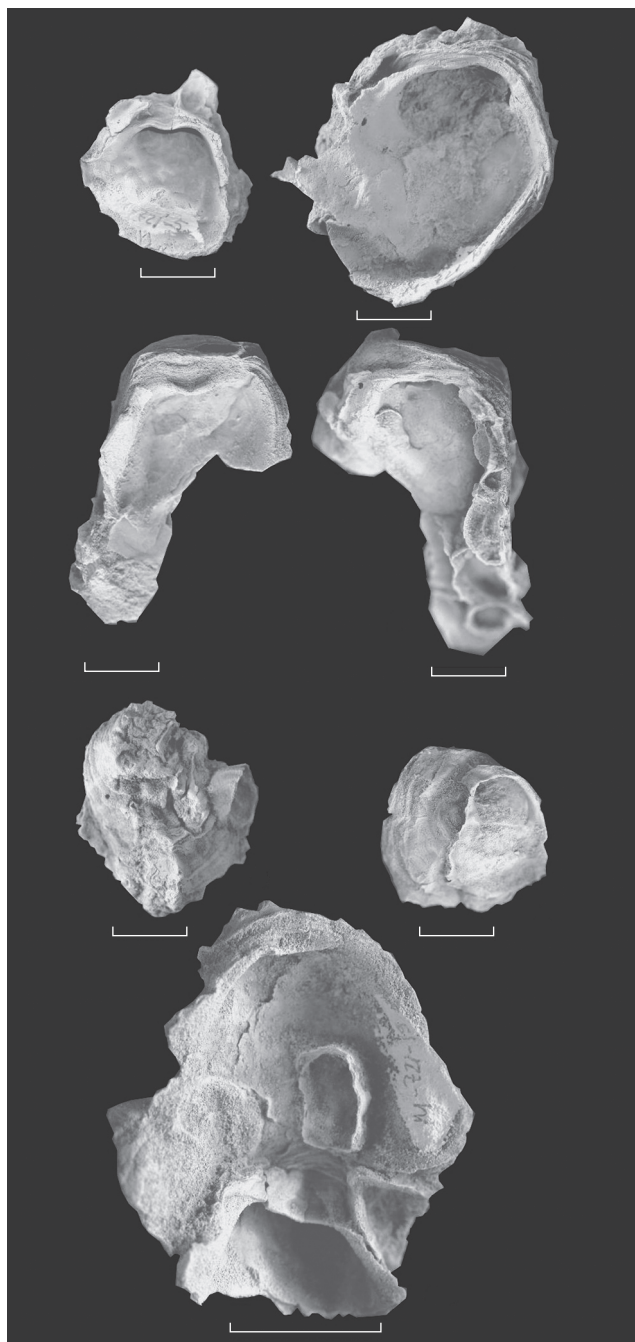


Fig. 3. *Gyrostrea bogdanovae* sp. nov.: — ... " (...) 2087/1,

(...) 2087/2,

) 2087/3,

... " (...)

) 2087/4,

; —

" " (...) 2087/5,

1.

..., 1986

		Aetostreon subsinuatum, Gyrostrea bogdanovae sp. nov.
	Isognomon	"Liostrea" germaini, Ceratostreon minos, A. subsinuatum, A. subsinuatum dorsatum
Dichotomites sp.		"Pycnodonte" miranda* ¹ , Amphidonte? sp., A. subsinuatum, C. minos
Polyptichites spp.		"P." miranda*, C. minos*, A. subsinuatum falciformis, A. subsinuatum
B. keyserlingi		"P." miranda*, Amphidonte? sp., Rastellum (Rastellum) ex gr. macroptera*, Ceratostreon fragilis*, C. minos*, A. subsinuatum, A. subsinuatum falciformis
Riasanites P. rostratus		Rastellum (Arctostrea) rectangularis*, Rhynchostreon? tombeckianum*, "L." germaini, C. minos
B. volgensis		R. (A.) rectangularis*, Rh.? tombeckianum*, "L." germaini, C. minos
Neocosmoceras		Deltoideum delta*, R. (A.) rectangularis*, Rh.? tombeckianum*, "P." miranda*, "L." germaini, Amphidonte? sp., C. minos*
S. semenovi		

¹ "..." (, 1978; 1980; ..., 1983; ..., 1988).

(. 3).

G. turkestanensis (Bobkova, 1949), G. akrobatensis Mirkamalov, 1966, G. ventricosa Mirkamalov, 1966, G. longa (Bobkova, 1961),

G. bogdanovae sp. nov.

4

8–10

G. bogdanovae

sp. nov.

30

GRYPHAEIDAE VIALOV, 1936

EXOGRINAE VIALOV, 1936

Aetostreon Bayle, 1878

Aetostreon subsinuatum (Leymerie, 1842)

. IV, . 1–3; . V, . 1–3 (.)

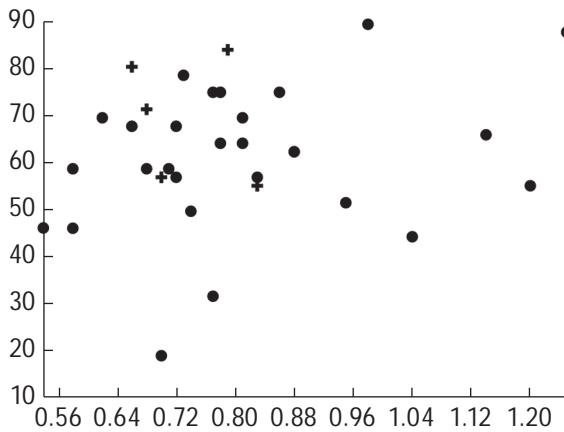
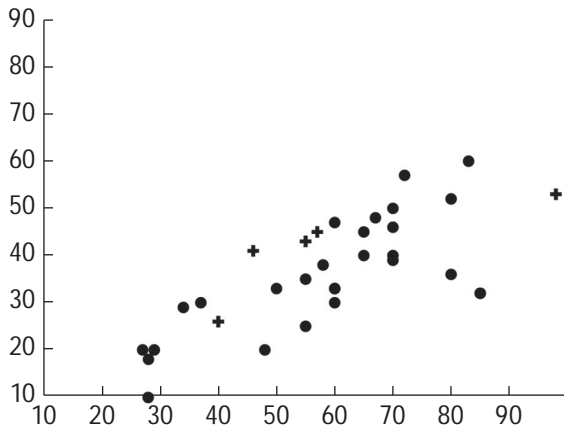
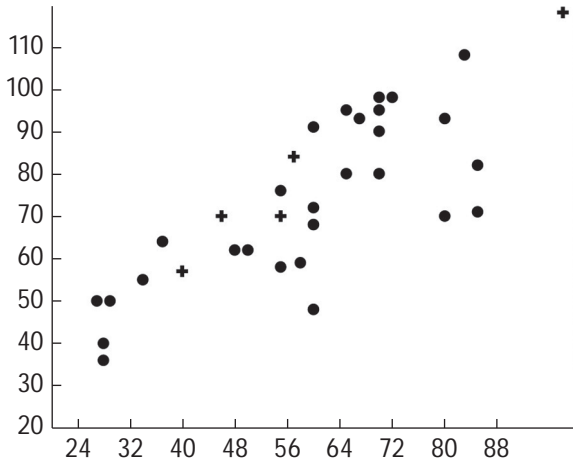
Exogyra subsinuata: Leymerie, 1842, c. 17, . XII, . 3–7; . 1957, . 44; . 1961, . 124, . IX, . 3.

Exogyra subsinuata var. falciformis: Leymerie, 1842, . 16, 17, . XII, . 5; . 1926, . 62, . IV, . 5, . VI, . 1; . 1949, . 158, . XXVI, . 5, . XXVII, . 1 a, b, c.

Ostrea (Exogyra) couloni: . 1899, . 71.

2087/4	43.1	36.7	1.17
2087/2	32.6	33.5	0.97
2087/5	19.7	15.6	1.26
2087/6	24.0	26.0	0.92
2087/7	34.2	29.2	1.17

Exogyra couloni: Wollemann, 1900, c. 8, . I, . 1. 33
Exogyra subsinuata forma typica: , 1926, . 61, (/) -
 . IV, . 4, . V, . 1. ' (/) -
Exogyra subsinuata var. falciformis: , 1926, . 62, (/) -
 . IV, . 5, . VI, . 1. Past 3, -
Exogyra subsinuata var. crimica: , 1957, . 44, . II, . 1. (. 4,), (. 4,) -
Exogyra aff. subsinuata: , 1957, . 44. (. 4,) -
Exogyra subsinuata aff. var. falciformis: , 1957, . 44. (. 4,) -
Amphidonta subsinuata: ..., 1960, . 199, . XVI, falciformis (" + ") -
 . 1-4; ..., 2005, . 257, . XLI, . 5. ' -
Exogyra sp. nov. inden.: , 1961, . 138, . III, falciformis (" + ") -
 . 1-4. ' -
Exogyra sp.: , 1961, . 140, . II, . 5. falciformis -
Exogyra falciformis: , 1961, . 125, . X, . 1, . XI, . 1. ' -
Aetostreon latissimum: Pugaczewska, 1975, . 51, . VII-IX; Dhondt, Dieni, 1988, . 38, . VIII, . 1-7, . IX, (Ley-
 . 1-6, . 18. merie, 1842, . XII, . 3-7). -
Aetostreon subsinuatum: ..., 2012, . 250, . XLIV, . 13. () -
Exogyra subsinuata, (Leimerie, 1842, . XII, . 3, .) -
 ; falciformis aquilina -
 ; falciformis -
 , aquilina -
 (108 80), dorsata -
 ; falciformis dorsata. -
 falciformis, dorsata. -
 dorsata, -
 falciformis, -
 () -
 A. subsinuatum. -
 " -
 (Pugaczewska, 1975; Dhondt, Dieni, 1988). -
 falciformis -
 A. imbricatum (Krauss, 1843) -
 (Cooper, 1995, . 5, . 1, 5-7, 8 A-C). A. subsinuatum falciformis A. imbricatum -
 imbricatum -
 (), () () -



4. *Aetostreon subsinuatum* (Leymerie):
 (/) (/)
 33
falciformis.

A. pilmatuegrossum (Rubilar et Lazo, 2009) (. 730, . 3-14)

(Pugaczewska, 1975; Dhondt, Dieni, 1988)

(Lamarck, 1801), *Aetostreon* (

: <http://coldb.mnhn.fr/catalog-number/mnhn/f/a50176>).

(*A. subsinuatum* *A. latissimum*)

(*A. subsinuatum* *A. latissimum*),

A. latissimum *A. latissimum* *A. latissimum*

A. latissimum *A. subsinuatum* *A. latissimum*

: 1) *A. subsinuatum*; 2) *A. subsinuatum*; 3) *A. subsinuatum*,

A. latissimum; 4) *A. subsinuatum* (*A. latissimum*

); 5) *A. subsinuatum* (*A. latissimum*

).

A. subsinuatum *A. latissimum*, *A. latissimum*

A. subsinuatum.

A. subsinuatum (Imlay, 1937),

Aetostreon: *A. reedi* (Imlay, 1937) (. 566, . 77, . 1-6, . 78, . 1-7),

A. putnami (Imlay, 1937) (. 566, . 81, . 1-8) *A. tamaulipana* (Imlay, 1937) (. 567, . 79, . 1-5).

A. subsinuatum

A. reedi -
 falciformis, A. putnami -
 aquilina, A. tamaulipana -
 A. subsinuatum,
 A. subsinuatum.
 B. keyserlingi;
 B. keyserlingi
 B. keyserlingi
 Dichotomites spp.
 Polyphtichites spp.
 falciformis:
 keyserlingi
 um:
 (?)
 Gyrostrea
 Gyrostrea (1963)
 Exogyrinae
 Pseudogyra (Freneix, 1982)
 Gyrostrea delectrei (Coquand, 1862)
 rostreinae. (Malchus, 1990)
 Flemingostreini
 Gyrostrea
 reoidea
 Cras-
 sostreinae.
 Gyrostrea
 Crassostrea.
 Crassostrea gigas (Thunberg, 1793) (
 , 2016).
 Gyrostrea
 inae Flemingostreidae.
 GYROSTREA
 Gyro-
 Curvostrea
 (Malchus, 1996).
 Gyrostrea bogdanovae sp. nov.
 ("Liostrea" germaini (Coquand, 1869).
 "L." germaini
 "L." germaini
 Liostrea,
 Crassostreinae.
 Gy-
 Liostreinae.
 Ost-
 Cras-
 forme Gerasimov, 1955
 Ostrea limaci-

3. 1963, 1966; Pugaczewska, 1975; ..., 2012; Kosenko, 2017) (: ,

Rastellum rectangularis		∨		
Rastellum ex gr. macroptera	∨			
Rhynchostreon? tombeckianum			∨	
"Pycnodonte" miranda	∨			
"Liostrea" germaini		∨	∨	
Ceratostreon minos	∨	∨	∨	
Aetostreon subsinuatum	∨	∨	∨	
"Ostrea" sanctae crucis			∨	
Gryphaeostrea cf. lateralis			∨	
Gryphaeostrea? arduennensis			∨	
"Lopha" cf. cotteai			∨	
"Lopha" cf. eos			∨	
Pernostrea cucurbita				∨
Deltoideum (Boreideltoideum) anabarensis				∨
Gryphaea borealis				∨

D. delta, -
 - 10. - , 1949. 328 .
 - , 1960. 702 .
 * * * - // . 2005. . 120. 1-788 .
 - // . 2003. . 78. . 4. . 35-48.
 - // . 2007. . 11-59.
 - // . 1961. . 46. . 2. . 126-151.
 (DD20190009), // -
 (41730317), 18-17-00038 : - , 1978.
 0331-2019-0004 " - . 8-10.
 // . 5. . 1980. . 26-28.
 - " " , 2012. 472 .
 UNESCO- . 1988. 204 .
 IUGS 679. . 1983. 120 .

1955. 379 .
1963. 4. 44–52. //
- (Anisomyaria)
1966. 190 .
1974. 216 .
- Deltoideum Rollier (Bivalvia, Ostreoidea)
// 2016. 4. 21–30. //
1963. 38. 5. 152–153.
1966. 133 .
1953. 73. 337–352. //
1961. 51. 1–234. //
1926. 147. 1–132. //
- // 1963. 218. 248–300.
- // 1896.
24. 1–79. //
1899. 28. 1–178. //
1986. 340 .
1957. 83 .
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IV

- 1–3. Aetostreon subsinuatum (Leymerie): 1– " " () 2087/21, falciform-
is, :1 – ; 2– « » () 2087/22, :2 –
" " () 2087/23, :3 –
, 3 – ;

V

- 1–3. Aetostreon subsinuatum (Leymerie): 1– " " () 2087/24, falciform-
is, :1 – Buchia keyserlingi; 2– " " () 2087/25, dor-
satum, :2 – ; 2 – " " () 2087/26,
falciformis, :3 – ; 3 –
, Buchia keyserlingi.

Early Cretaceous Oysters from Mangyshlak: Taxonomic Composition, Stratigraphic and Palaeobiogeographic Distribution

I. N. Kosenko, E. K. Metelkin

Based on the study of the representative collection of the Berriassian-Barremian oysters from Mangyshlak, information on their taxonomic composition, stratigraphic and palaeobiogeographic distribution was clarified. A new species, *Gyrostrea bogdanovae* sp. nov. from the Kugusem Formation (Hauterivian–Barremian), which is currently the oldest species of the genus *Gyrostrea*, as well as *Aetostreon subsinuatum* (Leymerie, 1842) (with three morphotypes: typical, falciformis and dorsatum) are described from Mangyshlak for the first time.

Keywords: Bivalvia, oysters, Lower Cretaceous, Mangyshlak, new species, *Aetostreon*, *Gyrostrea*

