## Latest Volgian (earliest Berriasian) *Volgidiscus*-bearing beds of the European part of Russia and their significance for inter-regional correlation and palaeogeography

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More than 40 years ago Raymond CASEY (1973) has recognized Volgidiscus lamplughi as a highest zone of the Volgian Stage in East Anglia. Volgidiscus, which is an only ammonite genus recorded from this zone, has been considered as direct descendant of Subcraspedites, the genus common in the underlying strata. For a long time, occurrences of ammonite genus Volgidiscus were known from NE Europe and Subpolar Urals only. Recently Volgidiscus were discovered in the Yaroslavl region of the Russian Platform, where they occurred within the beds with *Volgidiscus (V.) singularis* (KISELEV, 2003). However, Volgidiscus at first were found in the single section only, and relationship of Volgidiscusbearing strata with underlying and overlying zones remains unclear. Recently along with additional records of this genus together with Shulginites in the glacial boulders one more section showing slightly older assemblage with Volgidiscus has been discovered in the same region. Here within the relatively thick sandy member an assemblage consists from Volgidiscus (V.) pulcher, V. (Anivanovia) sp., rare Garniericeras aff. subclypeiforme and bivalves (mainly Anopaea and Camptonectes) occurs. Presence of a single specimen of Garniericeras, the genus which numerous to dominant in the middle part of the Late Volgian and gradually decrease in abundance later provides direct link with underlying sands of the Nodiger Zone, where this genus is also uncommon (1-2 %). Presence of two successive assemblages with Volgidiscus (tentatively recognized as pulcher and singularis biohorozons) provides direct link with ammonite succession of the highest Upper Volgian of Subpolar Urals as well as with V. lamplughi zone of NE Europe. Although uppermost Volgian is poorly fossiliferous in the possible immigrational pathway of these ammonites (Greenland-Norwegian Seaway), at least one ammonite from the core 6814/04-U02 drilled in the Norwegian part of the Barents Sea has a special significance as it could be assigned to as V. (V.) lamplughi. Volgidiscus (V.) pulcher, which has been described from the both East Anglia and Subpolar Urals (CASEY et al., 1977), should be considered as a species closely related (or even conspecific) with V. lamplughi. Thus records of V. pulcher in the Russian Platform and Subpolar Urals (as well as from the Northern Siberia) perhaps reflecting guick eastwards immigration of early Volgidiscus at the beginning of the Lamplughi Chron, providing good correlative level, which lies close to the base of the Arctic Chetaites chetae Zone and slightly above the lower boundary of the Berriasian Stage. Surprisingly, beds with Volgidiscus are lacking typical Boreal bivalve genus Buchia in both England and European Russia. Among bivalves' bipolar genus Anopaea is most abundant in the studied succession, while other bivalves (Plagiostoma and Entolium) are not common.

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CASEY, R., 1973. Geol. J. Spec. Issue, **5**, 193–266.
CASEY, R. et al., 1977. Izvestia Ac. Sci. USSR, ser. geol., **7**, 14–33.
KISELEV, D.N., 2003. In: Atlas of the Yaroslavl region geological monuments, 58–62.