This article was downloaded by: [UQ Library]

On: 17 November 2014, At: 12:28

Publisher: Taylor & Francis

Informa Ltd Registered in England and Wales Registered Number:
1072954 Registered office: Mortimer House, 37-41 Mortimer
Street, London W1T 3JH, UK

Annals and Magazine of Natural History: Series 5

Publication details, including instructions
for authors and subscription information:

<http://www.tandfonline.com/loi/tnah11>

On Gloidium quadrifidum, a new genus of the group Protista

M.N. Sobokin

Published online: 15 Oct 2009.

To cite this article: M.N. Sobokin (1879) On Gloidium quadrifidum, a new
genus of the group Protista , Annals and Magazine of Natural History: Series
5, 3:16, 320-320, DOI: [10.1080/00222937908562408](https://doi.org/10.1080/00222937908562408)

To link to this article: <http://dx.doi.org/10.1080/00222937908562408>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of
all the information (the "Content") contained in the publications
on our platform. However, Taylor & Francis, our agents, and our
licensors make no representations or warranties whatsoever as
to the accuracy, completeness, or suitability for any purpose of
the Content. Any opinions and views expressed in this publication
are the opinions and views of the authors, and are not the views
of or endorsed by Taylor & Francis. The accuracy of the Content
should not be relied upon and should be independently verified
with primary sources of information. Taylor and Francis shall not be
liable for any losses, actions, claims, proceedings, demands, costs,
expenses, damages, and other liabilities whatsoever or howsoever

caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

walls dissolve, and their mulberry-like contents float for some time in the fluid of the cavity, after which the spermatozooids, hitherto united by their heads, separate and become free.

Oviposition takes place at different periods, according to the genera and species, and it is effected through the segmental organs. — *Comptes Rendus*, February 24, 1879, p. 393.

On Glodium quadrifidum, a new Genus of the Group Protista.

By M. N. SOBOKIN.

This new type of the Protista has been found at Kasan in a fresh-water aquarium. It consists of a small mass of protoplasm, about 0.03 millim. in diameter, of a more or less spherical form, and without an enveloping membrane. It exhibits a clear and transparent ectosarc, an endosarc containing reddish and yellowish granules of different sizes, and a contractile vesicle occupying a variable position, but usually situated in the ectosarc. There is generally a lapse of three or four minutes between the first appearance and the disappearance of this vesicle.

The changes of form of the outline of this creature are slow; and it only emits short processes having a slight tendency to bifurcate. A division which occurs in it begins to show itself in the ectosarc; but before it has had time to become well-marked, there appears a second constriction, perpendicular to the first, so that the mass soon forms four parts, only attached to one another by slender peduncles united in the middle, and which finally separate completely. The contractile vesicle, which had at first withdrawn to the middle of the body, afterwards reappears in each of the four new individuals.

Under the influence of conditions which are still unknown, this Protiston undergoes an encystment. The outer layer of the ectosarc gives origin to a thin but resistant membrane; then, within this first envelope, other similar, more or less distinct layers successively make their appearance. Upon one point of the envelope of the cytode thus formed there is a funnel-shaped canal, which is closed at the outer surface only by the first membrane of the cyst. The protoplasm of the *Glodium* soon passes into this canal, ruptures the membrane which closes it, and passes outside. The organism which is thus set free is usually smaller than before the encystment. Multiplication by division takes place afresh, either immediately or after two or three successive encystments.

Glodium is distinguished from the true Amœbæ by the absence of a nucleus, and from the Monera by the existence of a contractile vesicle, and (except the Lepomonera) by its faculty of encystment.

However, as passages exist between the Amœbæ and the Monera, the most striking character which distinguishes this new form is the quaternary division. In the *Vampyrellæ*, indeed, a similar division is observed; but it is effected during the encystment, while here it takes place in the free phase. — *Morphologisches Jahrbuch*, vol. iv. 1878, p. 398; *Bibl. Univ.* March 15, 1879, *Arch. des Sci.* p. 287.