The hemicelluloses differed from one another with respect to their amounts in the plant and their monosaccharide content. Xylose predominated in a hydrolysate of HC-B (15% NaOH), which showed the presence of polysaccharides of the xylan type.

As can be seen from the results obtained, the carbohydrate complex of the epigeal part of M. neglecta includes a mucilagenous polysaccharide, pectin substances, and hemicelluloses. This is the first time that these polysaccharides have been isolated.

The mucilagenous polysaccharide of M. neglecta differs from other representatives of this family, especially from the genus Alcea [5], by the presence of considerable amounts of mannose residues in it.

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LIPIDS OF PROTOZOA.

I. PHOSPHOLIPID COMPOSITION OF Colpoda SP.

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In recent years, free-living infusoria have been widely used as model organisms for the study of the functional role of alkylglycerides and phosphonolipids in the structural organization of biomembranes [1-3]. One of the representatives of the infusorium Colpoda sp. has been isolated from natural water bodies, and its lipid composition has been investigated:

Classes and Subclasses of Phospholipids	Percentage of the Total Lipid Phosphorus
1-O-Akyl-2-acyl-sn-glycero-phosphatidylethanolamine	59.2
1-O-Alk-1'-enyl-2-acyl-sn-glycero-3-phosphatidyl-ethanolamine	2.4
1,2-Di-O-Alkyl-sn-glycero-3-phosphatidylethanolamine	4.6
1,2-Diacyl-sn-glycero-3-phosphatidylethanolamine	8.9
Lysophosphatidylethanolamine	2.9
Sum of the aminophospholipids	78.0
Ceramide aminoethylphosphonate	3.6
1-O-Alkyl-2-acyl-sn-glycero-3-phosphatidylcholine	7.0
1,2-Diacyl-sn-glycero-3-phosphatidylcholine	4.1
Lysophosphatidylcholine	0.9

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Phosphatidylinositol	1.2
Diphosphatidylglycerol	1.7
Phosphatidic acid	1.2
X_1 (unidentified phospholipid)	0.5
X_2 (unidentified phospholipid)	1.8

With the aid of the technique of micro-TLC for the quantitative determination of plasmalogen, alkyl-acyl and diacyl glycerophospholipids [4] we have shown that the phosphatidylethanolamines contained the 1,2-diacyl, 1-O-alk-1'-enyl-2-acyl, 1-O-alkyl-2-acyl, and 1,2-dialkyl analogs (see above). While the first three analogs are found frequently in nature, the 1,2-dialkylglycerolipids are encountered very rarely (an exception is formed by the archebacteria, which contain isoprenoid dialkyl lipids [5]). The phosphatidylethanolamine, containing all the analogs mentioned, was isolated from the total lipid extract with the aid of preparative TLC on 20 × 20 cm plates (Chemapol L silica gel, 5/40 μm, with 13% of gypsum). The mild acid and alkaline hydrolysis of the PEs isolated was carried out as described in [4]. The IR spectrum of the isolated unsponifiable phospholipid taken on a Specord-80M instrument (GDR) had the following characteristic absorption bands (frequency, cm^{-1}): 2935, 2855, 1460, 1365 ($-CH_2-$, $-CH_3$), 1115 (C–O–C), 1625 (N–H), 1025 (P–OH), 1205 ($P-O^-$), 1065 (P–O–C) (1,2-di-O-alkyl-PE).

Thus, the phospholipid composition of the infusorian Colpoda sp. has been studied for the first time. Aminophospholipids make up 78.0% of the total phospholipids. Among the natural analogs of the phosphatidylethanolamines 4.6% consists of 1,2-di-O-alkyl-sn-glycero-3-PE, and its IR spectrum has been studied.

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