Summary. In meristematic root tip cells of *Scilla sibirica* ($2n = 12$ and $3n = 18$) the following results were obtained with the aid of autoradiography: 1. The average duration of the mitotic cycle ($2n = 12$) is 69.5 h. The G_1 -phase lasts 36.5 h, the DNA synthetic phase 17.5 h, the

G_2 -phase 8 h and mitosis 7.5 h. 2. There are no marked differences in the lengths of the cell cycles nor in the duration of the various phases between diploid and triploid plants.

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Antarctic Seal Serum Proteins, Glycoproteins and Lipoproteins

In order to complete our investigations on Antarctic animals¹⁻³, we have studied the serum proteins, lipoproteins, glycoproteins and total lipids of the Antarctic seal (*Leptonychotes weddellii*).

This report was carried out on the sera of seals captured in the Argentinian Antarctic Base Almirante Brown (Lat. 64° 52' S., Long. 62° 53' W.).

The sera of 20 animals were analyzed and the results shown in Tables I-III express their average.

The estimation of total proteins was made with the Folin-Ciocalteu phenol reagent. Fractioned serum proteins, glycoproteins and lipoproteins were determined by cellulose acetate electrophoresis⁴⁻¹⁰ (Figure). Total lipids were determined by a method based on the sulfo-phosphovanillin reaction¹¹.

The results shown in Tables I and II do not differ greatly from the normal values of the other mammalian

species, although lipids and lipoproteins (Table III) are increased.

This fact can be explained because these animals utilize lipids and lipoproteins as reserve material¹².

Gel acetate electrophoresis of seal serum.

Table I. Proteins

	$\bar{x}$	2SD (g/100 ml)
Total proteins	7.07 ± 0.85	
Albumin	5.12 ± 0.68	
α_1 globulins	0.20 ± 0.05	
α_2 globulins	0.55 ± 0.14	
β globulins	0.98 ± 0.25	
γ globulins	0.85 ± 0.20	

The results express the average of 20 animals.

Table II. Glycoproteins

	$\bar{x}$	2SD
Total glycoproteins	12.1% ± 3.0 of the total proteins	
α glycoproteins	75.4% ± 9.5 of the glycoproteins	
β glycoproteins	8.3% ± 1.9 of the glycoproteins	
γ glycoproteins	17.5% ± 3.3 of the glycoproteins	

The results express the average of 20 animals.

Table III. Total lipids and lipoproteins

	$\bar{x}$	2SD
Total lipids	8.25 ± 0.11 mg/100 ml	
α lipoproteins	14.9% ± 4.3 of the total lipoproteins	
β lipoglobulins	85.1 ± 6.9 of the total lipoproteins	
β/α ratio	5.6 ± 0.5	

The results express the average of 20 animals.

Résumé. On a étudié les variations qualitatives et quantitatives des protéines sériques, lipoprotéines et glycoprotéines des phoques antarctiques, et on a trouvé que seulement les lipoprotéines et les lipides totales sont augmentées par rapport à celles des autres mammifères.

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