

ON THE MICROFLORA OF THE ANTARCTIC ZONE*

Hiroshi IIZUKA**

南極の微生物について*

飯塚 広**

Part 1. On the Bacterialflora

Bacteria and fungi were isolated from the materials collected bacteri-free and brought back in the refrigerators (1-3°C).

With regard to bacteria, 846 strain were isolated and identified.

Of those, *Brevibacterium* were 386, *Pseudomonas* and *Achromobacter* 383 and others 77.

As for low temperature bacteria, *Brevibacterium* which should be called obligate psychrophiles and have most favorable temperature for growth somewhere between 5°C and 10°C were obtained. And many *Pseudomonas* were got,

which can live also at low temperature as the scope of temperature favorable for living are of a wide range.

Bacteria which do not require nutrition though of low temperature quality were found in pieces of the seal flesh.

* Will be printed in the Journal of General and Applied Microbiology, 7, No. 2 (1961).

** Institute of Applied Microbiology, University of Tokyo.

NOTES ON SOME FUNGI AND YEASTS FROM ATARCTICA*

Keisuke TUBAKI**

南極採集品から分離された菌類について*

榑 啓 介**

With regard to fungi, five species of Hyphomycetes, and with yeasts, three species of anasporogenous group were isolated from nearly 50 soil samples which were collected by Dr. H. FUKUSHIMA (The 3rd J.A.R.E.) and by Dr. HAGA & Dr. MATSUDA (The 4th J.A.R.E.). For the isolation, malt agar and Czapek agar were employed at 15°, 20° and 25°C. No fungus or yeast were found from 25 samples of these soil materials. Of these cultures, isolated, the two species of fungi and a species of yeast are con-

sidered growing in the Antarctic, but others were probably brought in by the members of the Japanese Expedition or mixed during transportation of materials for the isolation.

At present, the following cultures were identified. The detailed description of them will be held otherwise.

* Will be printed in the Biological Results of the Japanese Antarctic Research Expedition. (1960).

** Nagao Institute.

Name	Samples (Number)	Date of Collection
<i>Aleurisma carnis</i>	Soil of west Ongul Isl. (1)	3rd Exp.
<i>Chrysosporium</i> sp.	" " (1)	"
" "	" " (1)	4th Exp.
<i>Cladosporium</i> sp.	Soil of east Ongul Isl. (1)	"
<i>Fusarium</i> sp.	Soil of water-pool, Base (1)	3rd Exp.
<i>Rhacodium</i> sp. (A)*	Soil of the Base (1)	"
" "	Soil of east & west Ongul Isl. and of the continent (11)	4th Exp.
<i>Rhacodium</i> sp. (B)*	Soil near the Base (1)	3rd Exp.
" "	Soil of the continent (1)	4th Exp.
<i>Cryptococcus albus</i>	Soil of east Ongul Isl. (1)	"
<i>Crypt. laurentii</i> var. <i>flavescens</i> *	Soil of water-pool (1)	3rd Exp.
" "	Soil of east & west Ongul Isl. and of the continent (5)	4th Exp.
<i>Rhodotorula mucilaginosa</i>	" "	"
<i>Torulopsis famata</i>	Soil of the Base (1)	3rd Exp.
<i>Trichosporon cutaneum</i>	" "	"

* These fungus are considered as those of the Antarctic.

THE ALGAE OF SYOWA BASE AND LANGHOVDE AREA*

Minoru HIRANO**

オングル島及びラングホブデ付近の淡水藻*

平野 実**

The source of the present contribution is based on material collected by the Japanese Antarctic Research Expedition, while staying at Syowa Base; a detailed report of this material was already published in 1959 in the Special Publication of the Seto Marine Biological Laboratory, Kyoto University, No. 3. The aim and endeavor of this report is to arouse an interest in Arctic Botany, and also to explain the terrestrial and

inland life of the Arctic plants, especially those of the micro-organisms. The present material is divided chiefly into two parts on the regional standpoint, namely East Ongul Island and the Langhovde area. The material concerning the Ongul Islands was brought back by Dr. Noriyuki NAKANO from a freshwater pond on the island, and contains various kind of algae and lower animals. Among these algae, the *Nostoc* colony is dominant and conspicuous, and this suggests that inland water is fairly rich in nutrient substances, and also it indicates that the life of arctic algae is not so severe, at least in warm seasons, as we suppose. The main algae from the pond of East Ongul Island are

* Printed in the Special Publications from the Seto Marine Biological Laboratory, Biological Results of the Japanese Ant. Res. Exped., No. 3, 1-21 (1959).

** Biological Laboratory of the Yoshida College, Kyoto University.