

ニセコ国定公園, 無意根山, 雨竜沼地域,  
大雪山国立公園南部及び道北部海岸地域の  
溪流・湿原・湖沼の水質

—— 1968年度の淡水棲三岐腸類相と珪藻相調査の追加資料 ——

川 勝 正 治

藤女子大学・藤女子短期大学 生物研究室

山 田 達 也

埼玉県小鹿野高等学校

平 野 實

長岡京市調子1-9-1

岩 城 住 江

藤女子大学・藤女子短期大学

**ABSTRACT**

Water characteristics of streams, swamps, ponds and lakes in the Niseko Quasi National Park, Mt. Muine, the Uryû-numa district, the southern part of the Daisetsuzan National Park and the seaboard district of North Hokkaidô: Results of the cooperative survey of the freshwater planarian fauna and the Diatom flora in these areas (1968). MASAHARU KAWAKATSU (Biological Laboratory, Fuji Women's College, Sapporo), TATSUYA YAMADA (Ogano High School, Chichibu, Saitama Pref.), MINORU HIRANO (Chôshi, Nagaokakyô, Kyôto Pref.) and Sister SUMIE IWAKI (Fuji Women's College, Sapporo).

The survey of the freshwater planarian fauna and the diatom flora in the swampy places of Hokkaidô was carried out in the summer of 1968 by the authors. The results of this survey were already reported as serial papers in the issues of the Bulletin of Fuji Women's College. They are as follows: KAWAKATSU, IWAKI & YAMADA (1969; distributional ecology of planarians), HIRANO & IWAKI (1970, 1972, 1973, 1974, 1982; diatom flora). As the final report of our 1968 cooperative survey, the data of water contamination from the samples of 73 localities are reported in the present paper (tables 1-5). Station Nos. in each table correspond to those of the tables in a previous paper by KAWAKATSU, IWAKI & YAMADA (1969, tables 1-5). Scientific names of planarians found in each station are given in the "Note" of each table. The Diatom St. No. in the column of tables 1-5 corresponds to each of the Station Nos. shown in the sketch-maps and tables printed in the previous papers on diatoms cited above.

著者らは、1968年夏に、北海道各地の淡水棲三岐腸類(プラナリア)相と珪藻相に関する小規模な共同総合調査を実施した。この調査で得た資料は順次報告してきた。

1. 川勝正治・岩城住江・山田達也, 1969. ニセコ国定公園, 無意根山, 雨竜沼地域, 大雪山国立公園南部及び道北部海岸地域の淡水産プラナリアの生態調査報告。藤女子大学・藤女子短期大学紀要, 7号, II部, 93-107頁。調査地域の概略と地図, 淡水棲三岐腸類の分布生態を記述した。ミヤマウズムシ *Phagocata vivida* (IJIMA et KABURAKI, 1916), キタシロカズメウズムシ *Polycelis sapporo* (IJIMA et KABURAKI, 1916), カズメウズムシ *Polycelis auriculata* IJIMA et KABURAKI, 1916, キタシロウズムシ *Dendrocoelopsis lactea* ICHIKAWA et OKUGAWA, 1958, エゾウズムシ *Dendrocoelopsis ezensis* ICHIKAWA et OKUGAWA, 1858 が出現した。これらの虫が棲息していた地点の水質についても簡単に触れた。

KAWAKATSU, M., IWAKI, S. & YAMADA, T., 1969. Report on the ecological survey of freshwater planarians in the Niseko Quasi National Park, Mt. Muine, the Uryū-numa district, the southern part of the Daisetsuzan National Park and the seaboard district of North Hokkaidō. Bull. Fuji Women's College, No. 7, Ser. II: 93-107.

2. 平野 實・岩城住江, 1970. 大雪山の珪藻 (1). 藤女子大学・藤女子短期大学紀要, 8号, II部, 59-105頁 (+ 図版 IV-XX). 化雲岳附近, 裾合平, 沼ノ平, ピウケナイ沢ノ平, 雲ノ平, 沼ノ原の湿原から37属, 184種を報告した。 *Eunotia daisetsuensis* HIRANO et IWAKI, 1970 の新種記載を含む。

HIRANO, M. & IWAKI, S., 1970. Diatoms from the Daisetsuzan National Park in Hokkaidō, 1. Bull. Fuji Women's College, No. 8, Ser. II: 59-105 (+ pls. IV-XX). *Eunotia daisetsuensis* HIRANO et IWAKI, 1970, was described.

3. 平野 實・岩城住江, 1972. 大雪山の珪藻 (2). 藤女子大学・藤女子短期大学紀要, 10号, II部, 119-141頁 (+ 図版 XXXIII-XLIII). 五色ヶ原の沼, 忠別岳とその附近の湿原, 平ヶ岳の沼, 石狩川源流部, 沼ノ原手前, その附近の湿原, 高原温泉附

近の溪流から28属, 162種を報告した。

HIRANO, M. & IWAKI, S., 1972. Diatoms from the Daisetsuzan National Park in Hokkaidō, 2. Bull. Fuji Women's College, No. 10, Ser. II: 119-141 (+ pls. XXXIII-XLIII).

4. 平野 實・岩城住江, 1973. 無意根山の珪藻。藤女子大学・藤女子短期大学紀要, 11号, 97-109頁 (+ 図版 VIII-XIII). 薄別の沼, 小川の溪流, 大蛇ヶ原の湿地流, 無意根山小屋横の溪流から22属, 67種を報告した。 *Eunotia subalpina* HIRANO et IWAKI, 1973 の新種記載, *Surirella linearis* W. SM. var. *heteropolis* HIRANO et IWAKI, 1973 の新変種記載を含む。

HIRANO, M. & IWAKI, S., 1973. Diatoms from the Mt. Muine district, Sapporo, Hokkaidō. Bull. Fuji Women's College, No. 11, Ser. II: 97-109 (+ pls. VIII-XIII). *Eunotia subalpina* HIRANO et IWAKI, 1973, and *Surirella linearis* W. SM. var. *heteropolis* HIRANO et IWAKI, 1973, were described.

5. 平野 實・岩城住江, 1974. ニセコ山岳地域の珪藻。藤女子大学・藤女子短期大学紀要, 12号, II部, 93-112頁 (図版 I-XI). 神仙沼, ニセコ大沼, 大谷地, チセヌプリ山分岐点附近の溪流, 硫黄川源流部, 五色温泉から30属128種を報告した。

HIRANO, M. & IWAKI, S., 1974. Diatoms from the Niseko mountainous district in Hokkaidō. Bull. Fuji Women's College, No. 12, Ser. II: 93-112 (+ pls. I-XI).

6. 平野 實・岩城住江, 1982. 藤女子大学・藤女子短期大学紀要, 20号, II部, 27-50頁 (+ 図版 I-VIII). 雨竜沼湿原の池塘と尾白利加川沿いの溪流計9地点から33属, 194種を報告した。

HIRANO, M. & IWAKI, S., 1982. Diatoms from the Uryū-numa Moor in Hokkaidō. Bull. Fuji Women's College, No. 20, Ser. II: 27-50 (+ pls. I-VIII)

道北部低地の湖沼群で採集した藻類材料は未発表であるが, 上記の一連の報告が出版されたことで, 著者らの一応の目的は達せられた。

調査当時, 73地点で採水し, 山田 (もと名寄市立

女子高等学校)がそれらの資料の水質分析を試みた。珪藻類の報告中には、水質については極く簡単に触れただけであり、大部分のデータは未発表のままに残されていた。著者らの共同研究が一段落したこの機会に、水質分析表を独立の報告としてまとめておきたいと思う。分析表は tables 1-5 から成り、それぞれに付した Station Nos. は川勝・岩城・山田 (1969) の tables 1-5 と同じにしてある。Note の項には出現したプラナリア類の種名と、Diatom St. Nos. を掲げた。後者は珪藻類に関する各報告の地図及び tables の番号にそろえてある。

北海道の淡水棲三岐腸類関係の文献は川勝が毎年まとめている“日本産渦虫類文献目録”(藤女子大学・藤女子短期大学紀要, 6号以降)に示されている。珪藻関係の文献目録はないが、徳井利信博士と川合

禎次博士編集の“北海道陸水学文献目録(1893-1966)”(北海道さけ・ますふ化場研究報告, 21号, 81-112頁;1967年刊)が参考になるであろう。なお、北海道高山帯湿原の珪藻相に関して、平野 實・岩城住江(1977);夕張岳の珪藻(藻類, 25巻,特別号-Mem. Iss. YAMADA-, 55-60頁+図版I)も報告されている。夕張岳の本岳~ガマ岩間(標高1,350~1,450m)のミズゴケ湿原の沼から採集した資料で、21属、72種を検出した。*Pinnularia stomatophora* (GRUN.)f. *maior*, HIRANO et IWAKI, 1977の新品種記載を含む。

北海道の低湿地・溪流・河川の珪藻相に関する文献はかなり出版されているけれども、本稿の目的とは異なるので、ここでは触れないことにした。

\*\*\*\*\*

#### Addresses of the Authors :

Dr. M. KAWAKATSU, Professor of Biology, Fuji Women's College, Kita-16, Nishi-2, Kita-ku, Sapporo (Hokkaidô) 001, Japan.

Dr. T. YAMADA, Ogano High School, Ogano-chô, Chichibu-gun, Saitama Pref. 368-01, Japan.

Dr. M. HIRANO, Professor Emeritus of Kyôto University, Chôshi 1-9-1, Nagaokakyô, Kyôto Pref. 617, Japan.

Sister S. IWAKI, Professor of Biology, Fuji Women's College, Kita-16, Nishi-2, Kita-ku, Sapporo (Hokkaidô) 001, Japan.

December 25, 1982.

Table 1. Results of physico-chemical analysis of water from 5 stations in the Niseko Quasi National Park, Hokkaidō (August 2-4, 1968)

Station No., locality, etc.	Altitude (m)	Water temp. (°C)	pH		COD(O <sub>2</sub> ) (ppm)	Total hardness (ppm)	SiO <sub>2</sub> (ppm)	NH <sub>4</sub> <sup>+</sup> -N (ppm)	NO <sub>3</sub> <sup>-</sup> -N (ppm)	PO <sub>4</sub> <sup>-</sup> (ppm)	Fe(total) (ppm)	Cl <sup>-</sup> (ppm)	Note
			Field data	Laboratory data									
11 Yuō River, source (Shiribetsu R. S.)	800	10.2	5.2	3.1	4.42	22.29	66.0	0.077	0.0203	0.04599	9.40	11.40	Diatom St. No. ⑦
14 Niseko Ō-numa (lake; Shiribetsu R. S.)	850	22.4	5.6	5.6	5.06	0.83	2.8	0.077	0.0178	0.00215	0.80	7.41	Diatom St. No. ③
19 A pool near Niseko Naga-numa (Horikappu R. S.)	780	25.2	5.4	5.2	33.18	1.65	3.3	0.093	0.0170	0.00031	+	5.13	
20 Niseko Shinsen-numa (lake; Horikappu R. S.)	780	24.2	5.8	5.8	22.12	0.04	1.2	0.050	0.0181	0.00031	+	5.70	Diatom St. No. ①
21 A brook of Ōyachi swampy land (Horikappu R. S.)	720	10.2	6.8	6.4	5.69	3.30	7.8	0.004	0.0167	0.00031	+	7.98	Diatom St. No. ④

Cf. KAWAKATSU, IWAKI & YAMADA, 1969, p. 98, table 1; HIRANO & IWAKI, 1974.

Table 2. Results of physico-chemical analysis of water from 4 stations in the Mt. Muine district, Hokkaidō (July 24, 1968).

Station No., locality, etc.	Altitude (m)	Water temp. (°C)	pH		COD(O <sub>2</sub> ) (ppm)	Total hardness (ppm)	SiO <sub>2</sub> (ppm)	NH <sub>4</sub> <sup>+</sup> -N (ppm)	NO <sub>3</sub> <sup>-</sup> -N (ppm)	PO <sub>4</sub> <sup>-</sup> (ppm)	Fe(total) (ppm)	Cl <sup>-</sup> (ppm)	Note
			Field data	Laboratory data									
1 Usubetsu-no-numa (lake; Toyohira R. S.)	400	23.2	5.6	5.9	16.12	2.06	2.2	0.061	0.2258	0.00031	0.52	8.55	Diatom St. No. ①
4 A brook at the lower part of Orochi-ga-hara swampy place	900	20.0	6.4	6.1	5.69	4.95	25.2	0.004	0.2566	0.00031	+	5.13	<i>Polycelis sapporo</i> is found.
5 Orochi-ga-hara swampy place (Toyohira R. S.)	930	25.0	4.2	4.1	15.48	3.30	25.0	0.025	0.1269	0.00092	0.90	6.27	Diatom St. No. ③
7 A brook near the Muine Hut (Toyohira R. S.)	1040	10.2	7.2	4.3	18.33	2.89	25.0	0.031	0.0258	0.00123	0.30	6.84	Diatom St. No. ④

Cf. KAWAKATSU, IWAKI & YAMADA, 1969, p. 98, table 2; HIRANO & IWAKI, 1973.

Table 3. Results of physico-chemical analysis of water from 14 stations in the Uryū-numa district, Hokkaidō (July 30-31, 1968).

Station No., locality, etc.	Altitude (m)	Water temp. (°C)	pH		COD(O <sub>2</sub> ) (ppm)	Total hardness (ppm)	SiO <sub>2</sub> (ppm)	NH <sub>4</sub> <sup>+</sup> -N (ppm)	NO <sub>3</sub> <sup>-</sup> -N (ppm)	PO <sub>4</sub> <sup>3-</sup> (ppm)	Fe (total) (ppm)	Cl <sup>-</sup> (ppm)	Note
			Field data	Laboratory data									
2 Oshirika River (Uryū R. S.)	120	20.6	7.2	6.5	11.06	3.72	15.6	0.008	0.0460	0.00061	0.01	6.84	Diatom St. No. 1
3 A stream at Uryū	120	16.6	7.0	6.4	6.00	9.91	16.3	0.015	0.1901	0.00245	0.21	11.97	<i>Dendrocoelopsis lactea</i> is found.
5 A stream near the Shokan Dam	190	17.8	7.2	6.7	14.85	8.67	19.7	0.014	0.0139	0.00184	0.06	9.69	<i>Polycelis sapporo</i> is found. Diatom St. N. 2
10 A spring at Misawa	230	14.6	7.0	6.6	6.32	3.72	14.5	0.010	0.0376	0.00276	0.01	7.98	<i>Polycelis sapporo</i> is found.
16 A stream near the middle part of the Penkepetan River (Uryū R. S.)	480	12.0	7.0	6.5	18.01	5.37	29.6	0.015	0.0697	0.00307	0.08	6.84	<i>Polycelis sapporo</i> is found. Diatom St. No. 3
20 A spring-fed stream in a small swampy place located at the middle part of the Penkepetan R.	500	14.8	7.0	6.3	7.90	4.54	20.0	0.010	0.0122	0.00092	0.14	5.13	<i>Polycelis sapporo</i> & <i>Pol. auriculata</i> are found.
30 A stream in a swampy place near the Minami-Shokansō Hut	580	11.2	7.0	6.4	5.69	5.37	24.3	0.010	0.0429	0.00245	0.02	5.70	<i>Polycelis sapporo</i> is found. Diatom St. No. 4
35 A spring near the upper part of the Penkepetan R.	700	7.2	6.8	6.4	3.79	12.38	27.8	0.010	0.0005	0.06132	+	5.70	<i>Polycelis sapporo</i> is found.
44 Penkepetan River	870	20.6	6.6	6.2	21.80	1.65	6.4	0.081	0.0261	0.00061	0.06	4.56	Diatom St. No. 6
51 The first lake (source of the Penkepetan R.)	900	22.8	5.6	5.3	36.97	0.83	3.3	0.033	0.2827	0.00061	0.11	3.99	Diatom St. No. 9
53 A swamp, No. 1	900	31.8	5.2	5.4	23.07	0.83	1.2	0.017	0.2199	0.00031	0.06	2.85	Diatom St. No. 9
54 A swamp, No. 2	900	24.0	5.4	5.1	40.45	0.83	4.2	0.057	0.0482	0.00031	0.26	4.56	
56 A swamp, No. 4	900	23.9	5.8	5.2	19.91	0.83	1.2	0.004	0.2902	0.00123	0.06	2.85	Diatom St. No. 8
57 A swamp, No. 5	900	24.2	5.8	5.1	60.36	1.24	6.6	0.089	0.0250	0.00061	0.23	3.99	Diatom St. No. 9

Cf. KAWAKATSU, IWAKI & YAMADA, 1969, pp. 99-100, table 3; HIRANO & IWAKI, 1982.

Table 4. Results of physico-chemical analysis of water from 30 stations in the southern part of the Daisetsuzan National Park ( July 17-21, 1968 ).

Station No., locality, etc.	Altitude (m)	Water temp. (°C)	pH		COD(O <sub>2</sub> ) (ppm)	Total hardness (ppm)	SiO <sub>2</sub> (ppm)	NH <sub>4</sub> -N (ppm)	NO <sub>3</sub> -N (ppm)	PO <sub>4</sub> <sup>-</sup> (ppm)	Fe (total) (ppm)	Cl <sup>-</sup> (ppm)	Note
			Field data	Laboratory data									
3 A brook near Ten'ninkyō Hot Spring (Chūbetsu River; Ishikari R. S.)	750	-	-	6.6	4.74	2.48	40.9	+	0.0251	0.00245	+	2.85	
10 A brook located in a swampy land	1750	-	-	6.0	9.48	1.24	3.7	0.001	0.3093	0.00031	0.12	2.28	
11 A mountain stream in the vicinity of Mts. Daisetsuzan ( source of the Chūbetsu-zawa Valley)	1800	8.4	7.0	6.8	10.11	2.48	12.1	0.001	0.0405	0.00184	0.01	2.28	<i>Polycelis auriculata</i> is found.
12 A small pool near Chūbetsu-numa	1800	20.8	5.6	6.1	22.44	1.65	6.3	0.315	0.0381	0.00613	0.28	1.71	Diatom St. No. 10
14 Chūbetsu-numa (swamp)	1800	16.0	6.0	5.9	10.74	1.24	3.9	0.004	0.0990	0.00061	0.08	1.71	Diatom St. No. 10
15 A pool near the top of Mt. Chūbetsu	1880	6.8	6.0	5.5	46.14	1.65	6.0	0.026	0.0431	0.39858	1.35	2.85	Diatom St. No. 10
16 The lower part of the Nutapu-Yanbetsu River	930	14.0	7.2	6.5	7.27	3.72	26.9	0.006	0.0559	0.00215	+	2.85	<i>Polycelis sapporo</i> & <i>Pol. auriculata</i> are found. Diatom St. No. 12
17 The upper part of the Ishikari River	980	13.4	7.2	6.5	24.65	3.72	25.2	0.005	0.0634	0.00092	+	3.42	<i>Polycelis auriculata</i> is found.
18 The middle part of the Kuchanpetsu River	1000	10.8	7.0	6.4	17.70	3.30	24.6	0.005	0.0358	0.00215	0.26	3.99	<i>Polycelis auriculata</i> is found. Diatom St. No. 13
26 Numa-no-hara Swampy Land: A swamp, No. 1	1400	-	5.4	5.4	20.54	0.83	2.0	0.023	0.0385	0.00061	0.50	2.28	Diatom St. No. 8
27 " A swamp, No. 2	1400	22.0	5.6	5.5	18.64	1.24	1.2	0.045	0.0701	0.00215	0.14	1.71	Diatom St. No. 8
28 " A swamp, No. 3	1400	18.2	5.8	5.4	7.90	0.83	0.5	0.010	0.0315	0.00061	+	2.85	Diatom St. No. 8
29 " A swamp, No. 4	1400	20.8	5.6	5.4	16.75	1.24	1.8	0.050	0.0604	0.00123	0.04	2.85	Diatom St. No. 8
30 " A swamp, No. 5	1400	26.0	6.0	5.6	14.22	0.83	0.5	0.045	0.0862	0.00061	0.16	1.71	Diatom St. No. 8
31 " A swamp, No. 6	1400	20.9	5.8	5.7	30.97	0.83	2.0	0.260	0.0579	0.00092	0.04	2.28	Diatom St. No. 8
32 " A swamp, No. 7	1400	18.6	5.6	5.8	9.16	1.24	0.5	0.010	0.0856	0.00031	+	2.28	Diatom St. No. 8

Station No., locality, etc.	Altitude (m)	Water temp. (°C)	pH		COD (O <sub>2</sub> ) (ppm)	Total hardness (ppm)	SiO <sub>2</sub> (ppm)	NH <sub>4</sub> -N (ppm)	NO <sub>3</sub> -N (ppm)	PO <sub>4</sub> <sup>-</sup> (ppm)	Fe (total) (ppm)	Cl <sup>-</sup> (ppm)	Note
			Field data	Laboratory data									
33 Ô-numa (lake)	1400	21.2	5.8	5.4	13.56	0.04	1.6	0.015	0.0753	0.00092	+	2.28	Diatom St. No. ③
34 A stream near Ô-numa	1400	-	-	5.4	15.48	1.24	1.2	0.045	0.0903	0.00092	0.01	2.28	
35 A stream near Ô-numa	1400	-	-	5.5	13.27	0.04	2.1	0.001	0.7284	0.00031	0.06	1.71	
35' A stream near Ô-numa	1400	-	-	5.7	19.59	1.24	0.5	0.045	0.6926	0.00031	0.45	2.28	
36 Numa-no-hara Swampy Land: A swamp, No. 8	1400	19.8	5.6	5.5	15.80	0.83	1.6	0.050	0.1065	0.00123	0.02	2.28	Diatom St. No. ③
37 " A swamp, No. 9	1400	20.4	5.6	5.6	14.54	0.04	1.2	0.027	0.0358	0.00092	0.01	2.28	Diatom St. No. ③
38 " A swamp, No. 10	1400	19.9	5.6	5.3	22.31	0.04	3.5	0.015	0.0521	0.00092	0.34	2.85	Diatom St. No. ③
39 A spring-fed stream located at the northern part of the Numa-no-hara Swampy Land	1450	12.5	6.0	5.9	24.33	1.65	4.0	0.006	0.0371	0.00031	0.02	2.28	<i>Phagocata vivida</i> is found.
40 A stream located at the snow line near the Numa-no-hara Swampy Land	1450	4.6	7.0	6.7	5.69	4.95	27.8	0.004	0.0545	0.00031	0.17	2.85	<i>Polycelis auriculata</i> is found.
50 Goshiki-ga-hara Swampy Land: A pool, No. 1	1650	19.5	5.8	5.9	22.28	1.24	2.3	0.085	0.0415	0.00061	0.02	2.28	Diatom St. No. ⑨
51 " A pool, No. 2	1680	18.2	5.0	5.8	9.48	1.65	1.8	0.001	0.0748	0.00031	+	2.28	Diatom St. No. ⑨
52 " A pool, No. 3	1700	17.0	5.6	5.6	24.33	2.06	2.5	0.014	0.0196	0.00184	2.05	2.85	Diatom St. No. ⑨
57 A stream located in the Goshiki-ga-hara Swampy Land	1770	4.8	6.6	6.3	4.74	3.30	24.7	0.014	0.0099	0.00153	0.11	1.71	<i>Phagocata vivida</i> is found. Diatom St. No. ⑭
58 A stream near the Chûbetsu-Ishimuro (source of the Nutapu-Yanbetsu River)	1620	1.9	6.4	5.8	4.74	0.83	0.60	0.015	0.4516	0.00061	+	1.71	<i>Phagocata vivida</i> is found. Diatom St. No. ⑮

Cf. KAWAKATSU, YAMADA & IWAKI, 1969, pp. 100-101, table 4; HIRANO & IWAKI, 1970, 1972.

(Continued from page 56.)

Table 5. Results of physico-chemical analysis of water from 20 stations in the seaboard district of North Hokkaidō (July 26-29, 1968).

Station No., locality, etc.	Altitude (m)	Water temp. (°C)	pH		COD(O <sub>2</sub> ) (ppm)	Total hardness (ppm)	SiO <sub>2</sub> (ppm)	NH <sub>4</sub> <sup>+</sup> -N (ppm)	NO <sub>3</sub> -N (ppm)	PO <sub>4</sub> <sup>3-</sup> (ppm)	Fe (total) (ppm)	Cl <sup>-</sup> (ppm)	Note
			Field data	Laboratory data									
1 Sarobetsu, Mikazuki-numa (lake)	5	22.1	5.0	5.0	93.85	2.48	20.8	0.045	0.0249	—	2.45	19.38	
2 Sarobetsu, Panke-numa (lake)	5	21.8	6.6	6.1	38.55	98.25	14.9	0.015	0.0473	0.00307	10.00	3380.67	
2' "	5	—	—	6.3	32.23	100.27	13.9	0.018	0.0488	0.00153	5.30	247.38	
4 Wassakunai-no-numa, No. 2 (swamp)	10	23.9	6.4	6.7	22.44	2.89	5.8	0.025	0.0115	0.00245	1.30	61.56	
10 Kabuto-numa (lake)	10	22.1	7.2	6.0	27.49	4.13	12.2	0.011	0.1613	0.03066	2.10	18.24	
14 Bakkaino-numa (lake)	10	21.0	7.4	6.7	34.44	35.91	8.9	0.013	0.1261	0.02759	10.00	106.59	
16 Wakkanai-Ô-numa (lake)	10	21.6	7.4	6.1	19.59	5.78	14.9	0.015	0.0431	0.00123	1.45	83.22	
25 A stream at Chiekaibo in the seaboard district on the Okhotsu Sea	50	14.2	7.4	6.5	18.01	10.32	10.8	0.010	0.0165	0.00215	0.77	23.37	<i>Polycelis sapporo</i> is found.
26 Sarukotsu-numa (lake)	10	17.2	7.6	6.7	27.18	108.98	7.6	0.015	0.0139	0.00307	0.82	4428.90	
27 Kimoma-numa (lake)	20	18.3	7.6	6.6	28.76	3.30	2.9	0.043	0.0239	0.00215	1.20	13.68	
27' "	20	—	—	5.8	6.32	1.24	2.1	0.010	0.0208	0.00307	0.80	5.7	
28 Poro-numa (lake)	5	18.6	7.8	6.8	30.97	16.51	4.9	0.015	0.0198	0.00092	0.52	7723.50	
29 Kamuito-numa (lake)	20	20.4	6.6	6.6	23.70	4.13	6.8	0.033	0.0115	0.00092	0.38	58.71	
30 A stream near Kamuito-numa	20	18.2	6.6	6.6	25.91	4.13	6.8	0.027	0.0127	0.00092	0.92	83.22	
31 Pon-numa (lake)	10	14.2	6.4	6.4	22.75	2.89	2.6	0.014	0.0123	0.00061	0.64	21.09	
32 Kuttyaro-ko (Ko-numa, lake)	10	19.2	6.6	6.5	29.07	105.68	8.1	0.030	0.0197	0.00245	6.70	4203.75	
34 A stream located at the southern shore of Lake Kuttyaro-ko (O-numa)	8	16.2	6.8	6.6	68.26	3.72	23.1	0.045	0.1261	0.00245	0.96	13.11	<i>Dendrocoelopsis lactea</i> & <i>Den. ezensis</i> are found.
A stream at Naka-okoppe	90	18.1	7.2	6.7	10.43	4.95	21.6	0.010	0.0109	0.00184	0.06	5.70	<i>Dendrocoelopsis lactea</i> is found.
38 A stream at Kami-okoppe	120	—	—	6.1	6.32	4.95	10.8	0.040	0.0103	0.00184	0.02	6.84	
A stream at Abashiri	10	—	—	6.5	3.79	6.19	40.9	0.001	0.0041	0.00307	+	39.9	