1934, in Herb. H. Koidz. no. 85407–85408); Prov. Hitachi: Mito (leg. S. SUZUKI, 3 VI 1934, in Herb. H. Koidz. no. 85409).

var. (3) **Sendaicum** (KITAMURA) H. KOIDZUMI comb. nov.

Syn. *Taraxacum sendaicum* KITAMURA in Act. Phyt. Geobot. III, No. 2. p. 104 (1934).

Ovarium fere abortivum, achenia rarissime fertilia (sec S. OKABE), Ceterum ut in *Taraxaco platycarpo*.

Nom. Jap. Sendai-tampopo.

Hab. Hondo: Prov. Rikuzen: Sendai in Horto Univ. Imp. Tôhoku (leg. H. KOIDZUMI, 10 V 1935, in Herb. H. KOIDZUMI, no. 98503–98504).

var. (4) **variabile** (KITAMURA) H. KOIDZUMI comb. nov.

Syn. *Taraxacum variabile* KITAMURA in Act. Phytot. Geobot. III. No. 2. p. 106 (1934).

Planta parva vel medioeris, folia adpressa—ascendentia pinnatilobata—partita, apice acuta—obtusa, scapi 1–5, capitula minora, squamae exteriores ovato-oblongae—oblongo-lanceolatae fere corniculatae fere multiparalleli-nervatae apice fere non incurvatae, achenia angustiora, ceterum ut in typo.

Nom. Jap. Miyama-Kwantôtampopo (nov.) Kitsune-tampopo.

Hab. Hondo: Prov. Sagami: Ashigarashimogun; Otometôge (leg. H. Koidz. 10 VI 1933, in Herb. H. Koidz. no. 20272); mt. Nagao (leg. H. Koidz. 10 VI 1933, in Herb. H. Koidz. no. 20273); mt. Kintoki (leg. H. Koidz. 10 VI 1933, in Herb. H. Koidz. no. 20271); Gôra (leg. H. Koidz. 10 VI 1933, in Herb. H. Koidz. no. 20274).

Dist. Planta endemica!

(To be continued.)

Materiae ad Bryophytas Nipponicae. I.

By

H. N. Dixon.

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1. **Dicranella dilatatinervis** DIX. sp. nov.

Elatissima. Caules dense intertexti, haud radiculosi, 10 cm. vel ultra alti, tenues, dichotomi, olivaceo-virides, inferne nigrescentes. Folia confertiuscule disposita, supra plus minusve falcata, sicca flexuosa, 2–3 mm. longa, e basi concava, triangulari, sensim in subulam canaliculatam, latius-

culam, longitudine variabili, saepe obtusiusculam, apice tantum leniter denticulatam contracta; margines plani. Costa latissima, ad basin circa 120μ , ubique male definita, subpercurrent. Cellulae subulae lineari-rectangulares, sat pellucidae, latiusculae, versus basin sensim latiores, superiores chlorophyllosae, infimae saepe inanes, breviter rectangulares, omnes laeves. Fructus ignotus.

Hab. Mt. Hakkôda, Prov. Mutu, 22 Oct. 1933; coll. S. MURAI (21).

A marked species in the tall habit, the leaves from a broad but not amplexicaul base gradually narrowed to a rather broad, not very fine subula, and the very broad, ill-defined nerve.

2. *Homaliadelphus polymorphus* DIX. sp. nov.

Homaliadelpho Targioniano (GOUGH) DIX. & VARDE fructu et peristomio omnino similis, stirps gametophyta tamen valde aliena; facies vix homaliacea, propter plantae tenuitatem et folia angusta, acuta. Folia majora oblongo-ovata, cultriformia, acuta, ramea angustiora, oblongo-lanceolata, subcultriformia, acuta vel angustiuscule acuminata; apud basin uno latere inflexo et margine ibi angustissime recurvo, ceterum plano, integro vel tenerrime denticulato. Costa debilis, unica, brevis, saepe carens. Cellulae anguste rhomboideae, pellucidae, supra sensim breviores, infra elongatae, ad alas plures paullo latiores, laxiores.

Fructus *H. Targioniani*. Calyptra parce pilosa. Spori $20-30\mu$.

Hab. Kami-nanbu, Prov. Kii, cum aliis muscis dense intertextus, 12 Jan. 1930; coll. N. IWASAKI (28).

The vegetative characters are entirely different from *H. Targionianus*.

3. *Claopodium rigidiusculum* DIX. sp. nov.

Sat robustum. Dense, humiliter caespitosum, flavo-viride. Paraphyllia nulla. Caules dense, breviter ramosi, rigidiusculi; folia dense conferta, stricta, patentia, interdum falcata, sicca leniter, rigide incurva: omnia subsimilia, parva, .5-.75 mm. longa, e basi late cordato-ovata sensim vel raptim in acumen strictum, angustiuscule acuminatum angustata. Margines plani, ubique conferte denticulati. Costa ad basin valida, supra angustior, summo apice desinens. Cellulae irregulares, subobscurae, breves, marginatae vix mutatae: quaeque papilla unica praealta acuta coronata; infra paullo laxiores, alares paucae, parvae, obscurae.

Cetera ignota.

Hab. Uwasima, Prov. Iyo, 18 Feb. 1934; coll. M. OGATA (62).

Quite distinct in the dense, short, rigid branching and foliation; the broad, short, rigidly acuminate leaves, and very highly and acutely papillose cells.

4. **Thuidium angustifolium** DIX. sp. nov.

Subgen. *Thuidiopsis*. Dioicum. Gracilescens, laete viride. Caulis brevis, plumose, conferte ramosus, ramis vix 3 mm. longis, versus apicem caulis sensim decrescentibus, filiformibus, plerumque simplicibus, basilariibus tantum hic illic sparse ramulosis. Paraphyllia sparsa, brevia. Folia caulina 1 mm. longa, late cordata, concava, biplicata, in acumen robustum breve curvatum raptim contracta, marginibus planis; costa valida, medio acumine soluta. Folia ramea ovato-lanceolata, angusta longe sed late acuminata, acuta, carinata, sicca incurva, subcatenulata; marginibus leniter recurvis minute crenulatis; costa validiuscula, dorso muricata. Cellulae parvae, distinctae, alte unipapillosae.

Folia perichaetialia erecta, apice loriformi falcato, fortiter nervosa, haud ciliata. Seta circa 1.5 cm. alta, laevis. Theca aequalis, sed torsione setae horizontalis, collo distincto, elliptica. Operculum haud visum.

Hab. Mt. Ôdaigahara, Prov. Kii, 11 Aug. 1934; coll. R. TOYAMA (11).

A well marked species in the very slender habit, vivid green colouring, almost simply pinnate branching, and narrow branch leaves. It is very close to *T. strictulum* CARD., but that has the cells "leniter papillosis vel sublaevibus", while here they are rather highly unipapillose.

T. hakkodatense BROTH. & PAR. is also near it. but the description of that species leaves much to be desired. There is no distinction made between the stem and branch leaves; the leaves are described as "anguste lanceolata", which can hardly apply to the stem leaves; if to the branch leaves then the description of the cells as "elongato-rectangularibus, tantum ad summum apicem ovoideis" abundantly distinguishes them from those of the present plant, where they are minute and almost or quite isodiametrical throughout, and even in the stem leaves very shortly elliptic.

5. **Drepanocladus japonicus** DIX. sp. nov.

Warnstorfia. Olivaceo-viridis. Caulis 4–5 cm. altus, parce ramosus, mollis, flexuosus, plus minusve radiculosus, sectione sine fasciculo centrali, sine strato corticali. Folia patentia, sat remota, leniter vel vix falcata, 2–2.5 mm. longa, e basi lata, cordato-ovata, .6–.8 mm. lata, sat cito (interdum sensim) in acumen breviusculum, perangustum, integerrimum angustata. Costa debilis, basin acuminis vix attingens. Cellulae elongate lineares, parietibus tenibus, versus basin laxiores, ad angulos plures multo laxiores, pellucidae, alas magnas decurrentes sat definitas formantes.

Dioicum videtur. Perichaetia longa, 3–4 mm. alta, folia leniter plicata. integra. Seta circa 3 cm. longa. Theca majuscula, curvata; operculum conicum. Annulus nullus. Peristomii dentes striolati, late marginati, intus alte lamellati. Endostomii membrana praealta, laxe areolata, laevissima.

Processus haud, rimosi, cilia 2, tenuissime capillaria. praelonga, appendiculata.

Hab. Wet places, Takahagi, Prov. Hitati, Sept. 1928; coll. H. SASAOKA (5363), type c.fr. Toyonaka, Prov. Settu, near a pond, 10 June 1934; coll. N. UI, comm. E. IHSIBA (33).

This appears to belong to the Section *Warnstorfia*, though I have found no trace of central strand in the stem. It differs at once from *D. fluitans* by the leaves very broad at base and rapidly narrowed, and by the comparatively short, not capillary acumen; the elongate cells, weak nerve and soft texture distinguish it from the *Exannulatum* group, and the short cells and weak nerve from the *Aduncum* group.

The cilia are the longest and most finely capillary I have seen in any Hypnoid peristome.

6. **Homomallium Koidei** DIX. sp. nov.

Dense, late humillime caespitosum, sordide viride. Caulis prostratus, dense brevissime pinnatim ramosus, ramis erectis, strictis, obtusis. Folia erecto-patentia vel leniter homomalla, parva, breviter ovata, breviter, latiuscule acuminata, concava, enervia; margines plani, subdenticulati. Cellulae lineari-rhomboideae, basin versus longiores, lineares, alares perpaucae, minutae, alas aurantiacas, parvas sed notatas instruente.

Fructus haud visus.

Hab. Arii, Minamimuro, Prov. Kii, 2 July, 1933; coll. T. KOIDE (17), type. Ibidem, 26 Mar. 1934 (1).

The genus is not quite certain, the very minute group of alar cells, small, but quite distinct being unlike that of *Homomallium*. *H. Doii* SAK., much larger plant, is also described as having few alar cells. The habit is that of a very small *Homalothecium*.

(To be continued.)