The Selection of Sphagnum for Diapers by Indigenous North Americans

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ABSTRACT. Consultation with elders from the Wet'suwet'en and Gitksan peoples of northwestern British Columbia, Canada, revealed that morphological attributes of Sphagnum are used to select proper moss material for use as diapers. Long, pink (non-red) material of S. magellanicum was considered as correct for diapers while several other mosses, as well as the short, yellow-green and red Sphagna were considered inappropriate. A review of the literature suggests that red Sphagna are avoided by several indigenous groups for diapering needs.

Sphagnum has unique properties that have long been recognized as environmentally and economically important (Richardson 1981). Sphagnum is present in large quantities in northern bogs and poor fens; it has the ability to exchange hydrogen ions for base cations, thus acidifying its surroundings; and it holds large quantities of liquid, often between 15 and 22 times its dry weight. These properties are ecologically important in the reduction of rates of decomposition that allows Sphagnum-dominated peatlands to sequester large amounts of carbon. Sphagnum also has been utilized economically through the production of soil amendments and absorptive board. The ability of Sphagnum to hold large amounts of liquid and to provide a rather sterile medium has long been recognized by native peoples around the northern hemisphere. The Inuit used it to pad their sealskin boots and for diapers (Crum 1973, Richardson 1981). Sphagnum was also used by European and North American troops as a dressing during World War I (Hotson 1918, 1919, 1921; Nichols 1918a, 1918b, 1920; Thieret 1956).

It has been widely reported in ethnographic and ethnobotanic literature that Sphagnum moss has been used by various North American indigenous peoples for diapering infants and for menstrual needs (Central Carrier Linguistic Committee 1973; Clément 1990; Gunther 1973; Kari 1887; Leighton 1985; Marles 1984; Turner 1979; Turner et al. 1983).

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Use by the Wet'suwet'en and Gitksan Peoples

The Wet'suwet'en and Gitksan peoples of northwestern British Columbia are among the groups who still use *Sphagnum* for such purposes (Johnson Gottesfeld 1994). Reportedly large quantities of yin, or ‘diaper moss’ were gathered every fall, for example the Wet’suwet’en, cleaned, dried, and stored it for winter use.

“...we’re talking about diapers moss, Jean. Even I used it from the start, eh. They’re so nice. When you first pull them out of the swamp. Oh, some of them be that long, nice and white, you know. You have to pick them up from the swamps where the cranberries grow. We go to pick cranberries and put up the moss the same time. And come back and pick—hang them on the trees, so all the bugs, whatever, would leave it. It’s a nice warm place for them, I guess. There’s not very many, eh, but they all, after they all leave we go back and get our backpacks and haul them all out. Whole winter’s supply. Oh, it’s beautiful, yeah. Really beautiful.” (Elsie Tait interview transcript 8/11/95).

The Gitksan also gather moss from ‘swamps’ for diapering infants (Olive Ryan interview transcripts 7/25/95 and 8/4/95).

Ethnobotanical research, however, reveal that not all species of *Sphagnum* are considered suitable for such purposes.

“yintl’akh yil. That’s ‘pampers’. This moss [a short green *Sphagnum*] is not right. The right one looks like blankets. They dry it hung up on trees. Where they get it is swamp.” (Lizette Naziel interview notes 10/20/87).

“A pale green *Sphagnum* about 6 inches long. yin yil. This is not the diaper moss. The diaper moss is yin. It is about 20 inches long.” [Lizette indicates this by gesturing]. (Lizette Naziel interview notes 10/3/88).

“yin moss diapers. Madeline used them right through Christina. Wash the moss and hang it out. yin (white). You can gather it at Springhill (Telkwa highroad halfway to Smithers). Gather it when it is 14-16" long. Not the short ones. Not the green. Pampers are called "Nido yin" (‘Whiteman’s moss’) because you use them and throw them away.” (Madeline Alfred interview notes 4/19/88).
The correct diaper moss was said by Wet'suwet'en informants to be about 20 inches (50 cm) long, pale in color, and to be found in ‘swamps’ [yi’n k’e’t]. Various efforts to locate material of Sphagnum matching this description in peatlands of the Bulkley Valley and Hazelton areas of British Columbia during the 1988-91 field seasons failed to turn up an appropriate candidates. In summer of 1995, material of a pale species of Sphagnum about 27 cm in length was collected in a small fen adjacent to South Hazelton, British Columbia (55° 14′N; 127° 39′W). The fen is dominated by Andromeda polifolia, Betula papyrifera, Ledum groenlandicum, Menyanthes trifoliata, Picea mariana, Rubus chamaemorus, Salix pedicellaris, and Vaccinium oxycoccos. The slightly pinkish Sphagnum was collected from the top of a hummock among Ledum groenlandicum shoots.

Specimens of the Sphagnum moss were collected, and shown to three Wet’suwet’en elders and one Gitksan elder, all of whom confirmed that this was ‘diaper moss’. Pat and Lucy Namox, Wet’suwet’en elders, commented that the moss they had collected in the past was even longer, approximately 40-45 cm in length. Olive Ryan, the Gitksan elder, commented that several other mosses collected in the fen that were green and dark red in color, and approximately 10-12 cm in length were not the right ‘swamp’ moss; they were not good for diapers because they were ‘dirty’ (Olive Ryan interview transcript 8/4/95). The ‘diaper moss’ from South Hazelton is well developed, pinkish Sphagnum magellanicum (specimen Gottesfeld s.n., deposited in ALTA). The other mosses collected at the site are S. angustifolium and short, red S. magellanicum as well as Aulacomnium palustre and Tomenthypnum nitens.

USE BY OTHER INDIGENOUS PEOPLES

Several reports of the use of Sphagnum for diapering and other purposes have appeared in ethnobotanical literature (Table 1) and Leighton (1985) described criteria employed by the Woods Cree for deciding which moss is suitable, and which should be rejected:

“A red form of Sphagnum nemoreum, called miskwaskamikwa or i-mithkwaki askïya in Cree was avoided because it caused irritation to the skin. Sphagnum warnstorffii, collected from wet depressions in the muskeg was also avoided because, the respondents claimed, it was less absorbent than the other mosses collected. Sphagnum nemoreum, without the reddish color was used in the same way as S. fuscum. The choice of Sphagnum species collected for diapers is more likely based on gross morphological differences such as growth habit, than on
microscopic species distinctions. This was suggested by R. E. Andrus (pers. comm.) who pointed out that S. warnstorfii occurs in hummocks as well as wet depressions, and in hummocks it is difficult to distinguish from S. fuscum. Women collecting moss did take it by handfuls from hummocks, and although there was no S. warnstorfii in the samples collected it seems unlikely that they would separate this species from other hummock formers while collecting moss for diapers.” (Leighton 1985).

The Chipewyan also apparently use both S. fuscum and S. nemoreum (as well, perhaps, as other species of pale or yellow coloration) for diapers, and they, like the Woods Cree, reportedly avoid the use of red sphagna for these purposes, because they believe that it will cause skin irritation. The Carrier people of north-central British Columbia also claim that red Sphagnum will cause sores and avoid its use for diapers (Central Carrier Linguistic Committee 1973); although species are not reported. One Wet’suwet’en respondent volunteered similar information regarding using red moss for diapers. However, red sphagna are reported to have medicinal uses among the Montagnais for hot compresses in case of fever or chills, or ‘paralysis’ (Clement 1990).

Large pale colored sphagna from the tops of hummocks seem to have been widely employed by indigenous peoples of North America for diapers, menstrual supplies, and similar sanitary needs. Evidence suggests that gross physical characteristics of the mosses determine their being chosen for these uses, with different taxa of similar physical characteristics chosen in different geographic areas. Avoidance of distinctly red sphagna for these purposes also seems to be widespread, however the pink colored S. magellanicum seems satisfactory.

Sphagnum moss is generally reported to be superior to cloth diapers for preventing diaper rash based on informants from several cultural groups (Johnson Gottesfeld field notes; Marles 1984). Careful disposal of unclean diaper material was considered important by Wet’suwet’en and Gitksan consultants, consistent with cultural emphasis on avoiding contamination by unclean substances such as feces or menstrual blood.

Acknowledgments. We would like to thank the Wet’suwet’en and Gitksan elders Lizette Naziel, the late Madeline Alfred, Pat Namox, Lucy Namox, Louise Pierre, and Elsie Tait [Wet’suwet’en], and Olive Ryan [Gitksan] for sharing information about diaper moss. We also acknowledge the Canadian Circumpolar Institute for field support in the summer of 1995 for LJG and the Natural Sciences and Engineering Research Council of Canada for Research Grant A6390 to DHV.
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ADDENDA

In the paper "Mosses of Albany County, Wyoming" of Evansia by P. M. Eckel (Vol. 13(2) 1996) the following acknowledgments were not included with the manuscript submitted. The information published was considerably improved by the inclusion of specimens collected in 1993 by Bill Buck, Norton Miller and Bill Reese and generously shared with the author. Full sets of this material are at NY, NYS and LAF respectively, with broken sets at BUF and RM.

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