

I. Svanberg

Uppsala university, Uppsala

DYE PLANTS IN SWEDEN 1700–2000

1. Introduction

The peasants in pre-industrial Sweden relied basically on the produce of their stocks (cattle, sheep, goat, swine), their fields and, especially in the northern part, on hunting and fishing as food sources. Some proto-industrial activities existed, which also was of importance for their economy. Wild plants were used mostly as refreshment for children, and to a very small extent as food. In times of famine wild plants were gathered as a substitute for cereals [Svanberg 2007, 2011]. However, traditional plant knowledge and harvesting of wild plants was of course very important in the rural areas for making houses, craft, tools, implements, and many other necessities of importance in the subsistence economy that was still typical for the peasants in the mid-nineteenth century. Gathering wild plants as fodder was another important domain. Healers, craftsmen, children, members of ethnic minorities and other categories had sometimes their own special knowledge about useful plants for various purposes [Svanberg 2005].

The vast majority of the wild plants utilized by the peasantry of pre-industrial Sweden were gathered for household use. However, some plant products were sold on the local markets by the peasants themselves, by migratory seasonal workers or by peddlers. Examples of such products were rakes, boxes of birch bark, root baskets, brushes of birch branches or hair moss, *Polytrichum commune* L., bundles of rough horsetail, *Equisetum hyemale* L., for cleaning purposes, berries for consumption, garlands of flowers for decoration and certain herbs for medicinal use [Svanberg 2002].

2. The importance of dyes

The peasants also made their own clothes of skin and wool. The primary source of dye for wool and other fibres among the peasants in pre-industrial Sweden has been wild plants.

Dye colours have been obtained from roots, berries, bark, leaves, lichen and more recently from fungi. The plants were usually gathered during the late spring and summer. Some dye plants were sold by the peasantry to local dye industries or on the international markets in the eighteenth and nineteenth century Sweden. The gathering and use of local wild dye plants is therefore an interesting biocultural domain for ethnobiologists to research. The use of such plants involved learning traditional and folk sciences as systems, with their own logic, taxonomies, and theories [Svanberg et al. 2011].

3. Sources

Traditional dyes are also interesting from a cultural historical point of view. When natural historian Carl Linnaeus made his provincial tours in Sweden one of his main aims was actually to gather information about dye plants used by the peasantry. It was part of the economic thinking of that time [Koerner 2009: 135].

The folk botanical knowledge among the local people was a valuable resource which could be exploited economically. Instead of importing expensive dye plants from abroad — the same was actually true of medicinal plants — the professional dyers could utilize locally available dye stuffs. Carl Linnaeus himself gathered a lot of information on traditional dye plants from the provinces of Gotland and Öland in Sweden (e. g. [Linnaeus 1742]). His pupil Pehr Kalm [1745] did the same with data from western Sweden. Several books based on these and other contemporary investigators were published in the eighteenth century [Linnaeus 1759].

Since these data were actually gathered from the peasants in the eighteenth century and since contextual information with records about where, when and by whom was provided through the travelogues published by Linnaeus and Kalm these facts are of tremendous value for ethnobiologists today [Svanberg et al. 2011].

4. Dye plants

Carl Linnaeus made many observations on the use of dye plants among the peasantry. To give just one example, in the province of Skåne he noticed in 1749 that the trifid bur-marigold, *Bidens tripartita* L., was “gathered when it was ripe and yellow, in order to

dye yellow brown with” [Linnaeus 1751: 240]. Trifid bur-marigold was actually earlier a widely used dye plant in southern Sweden. Linnaeus tells us that it was used in the provinces of Småland, Öland and Gotland as an orange dye. Pehr Kalm annotated its use in Bohuslän [Kalm 1745]. The wool was washed, dried, mordanted with alum, and dried again. Fresh trifid bur-marigold plants were boiled in water together with the prepared yarn for a couple of hours.

Figure 1. Plant dyed wool in a copper bowl. Photo Osva Olsen, 2015.



Among the very common dye plants used by the peasantry in many of parts of Sweden is cow parsley, *Anthriscus sylvestris* L. It gives a yellow or green colour. Also heather, *Calluna vulgaris* L., and bog myrtle, *Myrica gale* L. have been widely used to give a yellow colour on the yarn. The popular golden marguerite, *Cota tinctoria* (L.) J. Gay ex Guss, has the same effect. Alpine club moss, *Diepha-*

siastrum alpinum (L.) Holub, has also been used to dye cloth and yarn yellow. Common lady's mantle, *Alchemilla vulgaris* L., was also commonly used by the peasants in the eighteenth and nineteenth centuries. Tansy, *Tanacetum vulgare* L., which produces golden-yellow colour, was also in wide usage, and so were leaves of birch, *Betula pendula* Roth and *Betula pubescens* Erh. [Svanberg 2001].

The saw-wort, *Serratula tinctoria* L., played an important role as a dye plant in the seventeenth and eighteenth centuries. It was not only used within the peasant households for dyeing yellow and green, but also by professional dyers. Copenhagen in Denmark seems to have been a centre for the trade with saw-wort. In the 1760s large amounts of saw-wort plants were being exported from southern Sweden to Copenhagen. However, domestic dyers also bought gathered saw-wort plants. The plant, which obviously was very common in the southern part of Sweden, was gathered by poor people and sold to traders. Women seem to have played an important role in this gathering and trade. In some parts of Sweden peasant women got their income in cash from trading in gathered saw-wort plants [Svanberg 2004].

Brown dye was usually made from bark. For instance the bark of common buckthorn, *Rhamnus cathartica* L., has been used for that in Gotland, according to Linnaeus's observations. Red dye could be obtained from the rhizomes of northern bedstraw, *Galium boreale* L., and dyer's woodruff, *Asperula tinctoria* L., both commonly used especially in the southern part of Sweden [Svanberg 2001]. The Saami in the northern part of Sweden used the rhizomes of tormentil, *Potentilla erecta* (L.) Rausch., together with grey elder bark, *Alnus incana* (L.) Moench., in order to produce a red dye stuff [Olsen 2004].

It has been very difficult to get a blue colour out of native plants. Creeping jenny, *Diphysastrum complanatum* (L.) Holub, was common in the forest and it could be used, if some imported brazil wood, *Caesalpinia echinata* Lam., which could be bought in the pharmacies, was added, in order to produce a bluish dye. Also the berries of bog bilberry, *Vaccinium uliginosum* L., have been used to dye linen yarn blue. The leaves were sometimes used, too. Another colour difficult to get from native plants was black. However, the bark of common elder, *Alnus glutinosa* (L.) Gaertn., could be used for producing a black dye [Svanberg 2001].

Figure 2. Yarn dyed with various plants. Photo Osva Olsen, 2015.



5. Lichens

The use of lichens as dye plants have been widely known in the Nordic countries [Ahmadjian, Nilsson 1963; Nelson, Svanberg 1987; Svanberg 1998]. Most commonly used in Sweden were various species of *Parmelia*, especially the stone lichen, *Parmelia saxatilis* (L.) Ach., which has been used all over the country. This lichen was used without any other added ingredients and gave the yarn a beautiful brown colour, known as “moss brown” by the peasants. Linnaeus noted its use in the archipelago between Sweden and Åland Island in 1732, and it has been used until recently. It was usually gathered after rain, when it was easier to scrap it off stones. Also *Parmelia omphalodes* (L.) Ach. seems to have been widely used in Sweden. When Carl Linnaeus travelled on the island Gotland in the Baltic Sea in 1741 he noticed that the locals there manufactured a yellow dye on their woollen yarn with the help of *Vulpicida juniperinus* (L.) J.-E. Mattsson & M. J. Lai. Also the wolf lichen *Letharia vulpine* (L.) Hue has been

locally used in the provinces of Dalecarlia and Härjedalen. It gave a beautiful yellow colour [Svanberg 2001].

Very interesting also is the use and trade of the orchil lichen, *Ochrolechia tartarea* (L.) A. Massal. This was traditionally gathered by coastal dwellers along the west coast of Sweden and Norway. It played an important role as a dye plant because it gives a red colour, a rare colour among the local dye plants in Sweden. As a result it was very much sought after and the fishers in the coastal areas gathered large amounts of it; and peddlers traded it all over the country. These collecting activities went on until the mid-nineteenth century [Ejdestam 1971]. The dye was known as *byttelet* ‘pot dye’ or *Boråsfärg* ‘Borås dye’ in the eighteenth century. Merchants in Gothenburg also bought large quantities to export it to Scotland, where it was used as dye stuff in the manufacture of tweed. It is rather difficult to gather, but with the help of a sharp bent knife or a special tool it could, especially after rainfall, be scrapped off the cliffs along the coasts [Linnaeus 1747: 147; Ejdestam 1971].

In the spring of 1741, Linnaeus also observed in Lenhovda parish, Småland, the traditional use of *Xanthoria candelaria* (L.) Th. Fries as a dye plant: “When the farmers here make candles, they often colour them with a yellow moss (<...> This moss looks like a yellow mould and grows on old walls. It is scrapped off, wrapped in linen cloth and boiled in water which turns yellow. This yellow water is used to dilute the tallow used for dipping” [Svanberg 1998].

6. Dyeing eggs and primitive make-up

Although fresh eggs were still rare among the peasants in the nineteenth century, there is an old tradition of dyeing eggs for Easter. One common way was to wrap the egg with *Anthriscus* leaves. This method was used particularly in Skåne and Halland. The roots of stinging nettle, *Urtica dioica* L., have also been used in the dyeing of eggs, already noted by Linnaeus. If the root was boiled for a long time the peasants could colour the eggs yellow therewith. Linnaeus describes how the women in Småland coloured their Easter eggs with yellow birch leaves. Onion skins have also been used to dye eggs [Svanberg 2001].

In his “Flora lapponica” (1737), the young Carl Linnaeus described the use of field gromwell, *Lithospermum arvense* L., as

a kind of make-up for women. According to him, young women washed the fresh roots and used them to paint their faces. It gave the women a pleasant red colour on their cheeks, thus serving to attract suitors. This practice was particularly common in Hälsingland. Linnaeus repeated this claim briefly in his other books, e. g., “*Flora oeconomica*” (1749) and “*Flora svecica*” (1755). The same information, moreover, appears in many various floras (both Swedish and foreign), and Linnaeus is cited as the source; however, no new observations are ever reported. There is no evidence in Linnaeus’ published travelogue from his Lapland tour of 1732 that he actually observed the use of field gromwell as a dye plant in Hälsingland or elsewhere. It is very difficult, accordingly, to prove that he ever actually saw the plant being used in this manner. Linnaeus may in fact have made the observation mentioned earlier about the use of field gromwell. True, ethnobotanical reports of such a use are scarce in the literature. However, a Polish ethnographer Kazimierz Moszyński mentioned its use as a kind of face dye among peasant women in Russia¹, and the German ethnobotanist Heinrich Marzell referred to its use in Prussia. Certain German folk plant names indicate the same thing: *Bauernschmink* [Marzell 2000 (2): 1342], *Schminkwurtz* [Ruppius 1726: 177]. In addition, further Swedish data can be found in Antonius Münchenberg’s herbaria notes from Gotland, which date from the early eighteenth century. Münchenberg wrote that the root in question was known as *horlätta* (lit. “whore dye”). This name, which is also mentioned in several seventeenth century botanical sources, indicates the use of this plant as a face dye among prostitutes. Linnaeus’ note about the use of field gromwell to dye the cheeks among young peasant women in Hälsingland may therefore be based on an actual observation [Svanberg 2000].

7. Revival of the use of dye plants

With the industrial revolution in the late nineteenth century a lot of new goods came onto the market and also reached the countryside.

¹ Н. И. Анненков в своем «Ботаническом словаре» 1878 г. в статье о воробейнике полевом *Lithospermum arvense* L. указывает: «Корни, собранные весною до появления листьев, употр. вместо румян» (прим. сост.).

An important chemical innovation in the 1860s was in dyestuffs. This resulted in the development of new, strongly coloured synthetic dyes, and by the 1870s commercial dyeing with natural dyestuffs was rapidly disappearing. In the late nineteenth century interest in gathering and using native plants for dyeing rapidly decreased in Sweden. Cheap and readily available synthetic dyes could be purchased in local stores and pharmacies [Svanberg 2001].

However, a rebirth came with the crafts movement around the time of the First World War. Pioneers in this field were Charlotte von Scheele (1907), Helena Öberg (1911), Ebba Billing (1913) and Beda Larsson (1916) who in the early twentieth century published manuals with recipes on how to make traditional dyes of native plants. Their booklets with often very similar contents were based on the vanishing folk tradition. The influential crafts movement organised courses for the textile trade and as a result plant dyes survived. The craft of making traditional dyes made of plants has also been demonstrated at Skansen open-air museum in Stockholm.

A significant contribution was made by crofter's wife Lisa Johansson, who in the 1940s collected many recipes among the settlers in Lapland. She published a small guide of vegetable dyes that were based on recipes from her grandmother and other elderly women [Johansson 1947]. It has been published in several editions and has been important for the continuing interest in vegetable dyes today [Kujawska, Svanberg 2014].

In the 1970s and 1980s, the textile artists Gösta Sandberg and Jan Sisefsky are of great importance for promoting — by books, courses and instructions — home-dyeing of yarn with wild gathered plants [Sandberg, Sisefski 1981]. Especially in the 1970s there was a renewed interest in the subject, and several handbooks and collections of recipes were published and courses given. This interest continues to pop up over the years. Several traditional dye plants, such as *Anthriscus sylvestris*, birch-leaves and stone lichens have maintained their popularity over the years.

Many mushrooms can also be used for dyeing wool and other natural fibres. However, this is a more recent habit in Sweden. While the custom of using various lichens belongs mainly to the eighteenth and nineteenth centuries, the late twentieth century saw renewed attempts to use mushrooms to dye wool. The wealth of useful taxa,

such as the shingled hedgehog, *Sarcodon imbricatus* (L.) P. Karst., the urban middle class's general increasing interest in fungi and the relatively simple procedure for making dyes out of mushrooms suits modern Swedes and has contributed to its popularity. A special society, Fungus Dye Society, for promoting the interest in making dyes of fungi was founded in 1992.

Dyeing yarn with wild plants, lichen and fungi is a living tradition.

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