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"Long hard-ſounding Latin name[s]": Applying Historical Ethnobotany to the Loddiges Plant Nursery (1818–1830)

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Abstract Despite their potential, nursery stock catalogs have been overlooked in previous ethnobotanical studies. Here, this gap is addressed by surveying nursery-based plant knowledge cultivated within the historic British Loddiges nursery through an analysis of their stock catalogs dating from 1818 to 1830. Employing a historical ethnobotanical approach, the topics of categorization, nomenclature, and sourcing practices in the Loddiges nursery are examined while also exploring the methodological considerations of utilizing nursery stock catalogs in ethnobotanical research. Findings underscore the pragmatic nature of nursery-based plant knowledge, offering insight into the relationship between nurserymen and the plants they cultivated. This essay aims to clarify how sources such as stock catalogs can enrich historical ethnobotanical investigation and broaden the scope of ethnobotanical research to include topics such as commercial plant nurseries.

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Introduction

Nurseries propagate, cultivate, and offer plants for sale. The species grown in a nursery can vary, but the most common iteration is a retail nursery that sells plants for the garden. Historical place names throughout the British landscape suggest to the longstanding presence of plant nurseries. Names such as *impyard*, from the Old English *imp* 'sapling' and *geard* 'enclosure', were first recorded during the reign of Henry I (1100–1135) and continued in use through the nineteenth century (Harvey 1974). These early nursery gardens likely cultivated seedling, saplings, and other hardy trees for use in grafting and different types of agriculture.

In Britain, the nursery trade proliferated following European exploration and colonization of the globe in the early modern period. The growth of the nursery industry in sixteenth-century Britain also saw the emergence of a new merchant class known as nurserymen, who were defined by their involvement in the trade of plants and seeds. This term is first recorded in 1629 (Harvey 1974; OED 2022). The herbalist and early botanist John Parkinson provides the earliest English reference to nurserymen: "*The red Cherry stocke is in a manner the onely tree that most Nursery men doe take to graft May Cherries on in the stocke,*" while also attesting to the shared body of shared plant knowledge amongst the group (1629:539).

Many British commercial nurseries came to specialize in imported, exotic species during the eighteenth & nineteenth centuries, offering for sale plants never seen in European gardens. These newly introduced plants were brought to Europe not for alimentary purposes but rather as curios and objects of scientific interest. Novel plants typify the kinds of exotic and luxury goods desired by the upper classes of the era (Alcorn 2020, 2022).

This historical focus in the nursery industry catalyzed knowledge production as nurserymen strove to successfully cultivate unfamiliar, exotic species in their garden beds, greenhouses, and hothouses. Plant nurseries are commonly understood as spaces for plant propagation, cultivation, and commerce; indeed, their operations are driven by profit. Yet, this

perspective eclipses the role nurseries play as places for the generation and dissemination of plant knowledge.

Nursery-based plant knowledge is formed through daily encounters between the people of a nursery and their stock of plants. This knowledge is evidenced in feats such as propagating and introducing novel, unknown species into cultivation in Britain. The ability to acquire, develop, and implement new plant knowledge underpinned what Harvey (1974), in his study of the nursery trade, termed "plantsmanship." An expansive take on nursery operations and nursery-based plant knowledge aligns with prior research on the subjects. Coulton (2018) similarly acknowledged the dual nature of the trade in the eighteenth century; nurseries did not exist solely as commercial ventures but also as sites for the cultivation of specialized plant knowledge.

A rich network of plant nurseries operated in eighteenth and nineteenth-century London and the nearby Home Counties. The trade would come to be dominated by the Loddiges family during this time. The Loddiges are primarily known as a group of Georgian-era nurserymen who operated a plant nursery in Middlesex from *c.* 1771 to 1852. The former Loddiges nursery, in what is now The London Borough of Hackney, was a world-class institution; it possessed at one time the world's largest hothouse and introduced countless species into British gardens.

The Loddiges nurserymen exemplify how plant knowledge is produced against a backdrop of commercial operations in a nursery. For example, the Loddiges nurserymen were amongst the first to successfully commercially cultivate orchids through their experiments with natural cultivation techniques, i.e., the cultivation of orchids on trees and bark as epiphytes, as they are found growing in situ (Solman 1995). Similarly, the Loddiges nurserymen played a role in propagating Victorian-era pteridomania*,* fern fever, through their experimentation with cultivation methods that mimic a plant's original growing conditions, in collaboration with Dr. Nathanial Ward and his famed terrarium, the Wardian case (see Keogh 2020; Solman 1995).

This nursery-based plant knowledge and its development is of interest to ethnobotanists, who study the relationship between plants and humans. Contemporary and historical plant nurseries have been overlooked as research subjects in ethnobotany. The Loddiges nursery, famed for the breadth of its operations, offers a promising lead as a potential source of historical nursery-based plant knowledge. However, it also raises important methodological concerns: how can nursery-based plant knowledge be accessed via a historical ethnobotanical approach?

Of the many research approaches that fall under the umbrella of ethnobotany, the historical ethnobotanical approach allows for a deeper understanding of historical human-plant relationships by using written and iconographic records (Medeiros 2020). Numerous studies employ this approach as an analytical tool to analyze a diverse range of human-plant encounters (see Dafni et al. 2020; Kalle and Sõukand 2012; Petran, Dragos, and Gilca 2020; and the related "Botanico-historical approach" of Heinrich et al. 2006). While sometimes only explicitly termed, the historical ethnobotanical approach has been utilized extensively within the discipline. For example, using popular literature, Pardo-de-Santayana et al. (2006) implemented a related approach to characterize ethnobotanical realities in sixteenth-century Spain. Authors continue to advance the idea that historical ethnobotanical findings remain relevant to contemporary theoretical and methodological discussions in the discipline (see Kalle and Sõukand 2023; Silva et al. 2014).

In the case of nineteenth-century nurserymen, particularly the Loddiges family, the bulk of surviving historical sources available for historical-ethnobotanical analysis are catalogs and other stock lists. The limited set of sources from the Loddiges nursery presents theoretical and methodological challenges. These relate to the fact that it is difficult to parse out any cultural or nursery-based plant knowledge from a stock list; they are purely economic and quite dry.

Rather fortuitously, the Loddiges nursery published both regular stock catalogs and, for some time, an accompanying illustrated guide that offered information on certain featured species available for sale. It has been stated that these two Loddiges sources together are of "unique historical value" for establishing the dates and locations of introduced plants into the Loddiges nursery (Solman 1995:50). Accordingly, the Loddiges nursery publications must also offer a promising starting point for an ethnobotanical investigation into nursery-based plant knowledge. What, if any, plant knowledge can be gleaned from analyzing the two Loddiges nursery publications in tandem? Furthermore, what

methodological possibilities are offered by utilizing stock catalogs as a primary data source in historical ethnobotanical research?

Methods

Study location

This study focuses on the Loddiges family plant nursery, active from *c.* 1771 to 1852. The nursery was situated in the rural and marshy historical county of Middlesex, now within the Hackney Borough of Greater London. The Loddiges nursery cultivated and maintained a large, varied stock but was primarily known for their tender, exotic plants.

The Loddiges nursery also produced a series of text and image-based publications to advertise their stock (Stafleu and Cowan 1981). Their primary publication was a text-based stock catalog that ran from 1777 to 1849. A pictorial, encyclopedic supplement to the text-based catalog, *The Botanical Cabinet*, was published monthly from May 1817 to March 1831. Issued as fascicles, subscribers could bind a year's periodicals to create an authoritative guide on the nursery's flora.

Three institutions preserve the primary historical sources consulted in this study: The Society of Antiquaries Library, London; Canterbury Cathedral's Archives and Library, Canterbury; and the Hackney Archives, London. The Society of Antiquaries preserves the bulk of unpublished material, including catalogs and the personal effects of the Loddiges nurserymen, sourced from a bequest by Dr. Conrad Loddiges (d. 1949), a descendant of the nursery's founder. The Canterbury Cathedral Library preserves a full copy of the Loddiges periodical, *The Botanical Cabinet*, and many other sources relating to natural history and the history of botany. Facsimiles of many Loddiges publications, including those analyzed here, can be found online using the Biodiversity Heritage Library.

As only the 1818, 1820, 1823, 1826, and 1830 Loddiges Catalogs correspond to editions of *The Botanical Cabinet*, these years were selected to maximize the amount of extractable data. From these sources, two features were chosen for further analysis: the names of nursery plants and the provenance of nursery plants. However historically valuable these sources are, they do not provide a fully fleshed out picture of the Loddiges nursery's operations and the full extent of nursery-based plant knowledge. What they relate to a modern reader is the conceptual organization of plants by the nurserymen, the provenance of their stock, and glimpses of the knowledge produced by the Loddiges nurserymen.

Data collection

Historical ethnobotany utilizes documentary analysis to understand human-plant interactions through historical and archival sources. These primary sources act as the material manifestations of a given research subject (Medeiros 2016). This property of historical sources affords an understanding of the milieu in which they arose.

From 1818–1830, the Loddiges nursery catalogs list certain plants with a number following their name, corresponding to an entry in the catalog's illustrated companion, *The Botanical Cabinet*. Due to the expense of producing a richly illustrated periodical like *The Botanical Cabinet*, it can be assumed that it featured the species deemed by the Loddiges nurserymen to have the highest probability of cost recoupment. To a researcher, these specimens represent the most coveted plants in the Loddiges' collections, providing a convenient sample from which to draw broader conclusions about ethnobotanical knowledge.

After compiling plants listed in the catalogs and locating their corresponding entry in *The Botanical Cabinet*, discernable mentions of dates and locations were extracted (n=567 & n=1012, respectively) and used to establish the provenance of the nursery's stock. The names and classification of each listed plant were then collected from their corresponding entry in the catalogs. These data were then compiled into a database of the Loddiges' entire stock from 1818 to 1830.

Analyses

From the Loddiges data, extracted dates were averaged for each catalog year to understand the rate at which plants entered the nursery and cultivation. Location data was used to generate a heat map to visualize the geographic distribution of the Loddiges' stock. The theoretical basis for analyzing plant names in the Loddiges nursery is partly drawn from the concept of cultural domains. Cultural domains are categories of knowledge shared amongst members of a culture, encompassing the different categories of human interactions and possessing a "hierarchical taxonomic structure" (Borgatti 1994, 1998).

On analyzing historical ethnobotanical data, Medeiros contends that through the social frameworks of memory, a historical source can

Table 1 The Loddiges nurserymen used 13 horticultural divisions to classify and categorize plants in their stock catalogs (1777–1849). The name of each division is given in English, followed by its name in German [Gr.], French [Fr.], or Latin [L.] as appears in the catalogs. An asterisk indicates divisions that appear in two or fewer catalogs (*). A taxonomic identification and gloss is provided if possible. All spellings have been modernized.

Division Name	Example
Kitchen Garden Seeds* • *Graines pour le Jardin potager* [F.] • *Küchengarten saamen* [G.]	*Sandwitsche Gartenbohne* 'Sandwich common bean'
Bulbs for the Floral Trade* • *Les fleurs des floriste*s [F.] • *Blumen* [G.]	*Verschiedene sorten nelken* 'different types of bulbs'
Greenhouse Plants • *Plantes des serres à orangerie* [F.] • *Gewächshaus Pflanzen* [G.]	*Amerikanische grosse Aloë* 'large American aloe' (= *Agave americana*)
Fruit Trees* • *Les arbres fruitiers* [F.] • *Obst und fruchtbäume* [G.]	*Nektarinen oder glatte Pfirschen* 'nectarines or smooth peaches'
Hothouse/Stove Plants • *Plantes des serres chaudes* [F.] • *Treibhaus pflanzen* [G.]	*Kleine Melonendistel* 'small melon thistle' (= Cactaceae)
Palms*	*Sabal umbraculifera* (= *Sabal bermudana*)
Hardy Perennials	*Asparagus verticillatus*
Filices*	*Dicksonia antarctica*
Hardy Trees and Shrubs • *Arbres et arbrisseaux durables, qui endurrent les rigueurs de nos hyvers* [F.] • *Harte bäume und stauden die hier im freyen wachsen*	*Common heath (= Calluna vulgaris*)
Summer Garden Seeds* • *Graines de toutes sortes de plantes fibreuses, tubereuses et bulbeuses* [F.] • *Saamen von sommergewächsen* [G.]	*Nelken '*carnations'
Plants with fibrous, bulbous and tuberous roots* • *Plantis fibrosis, bulbosis, et tuberosis* [L.] • *Des Plantes à racine fibreuse, bulbeuse et tubereuse* [F.] • *Harte zafigte zwiebeln - und knollengewächsen/Von zaserichten, Knolligen un Zwiebelgewächsen* [G.]	*Crocus officinalis (= Crocus sativus*)
Seeds from Local and North American Hardy Trees and Perennials Growing Outdoors* • *Graines des arbres et arbrisseaux Americains, et de notre païs qui endurrent les reigueurs de nos hyves* [F.] • *Saamen von hiesigen un Nord-Amerikanischen harten bäumen und stauden die im freyen wachsen* [G.]	Annona triloba (= *Asimina triloba*)
Grass and Herb Seeds for Animal Fodder* • *Graines des gramens et plantes pabulaires* [F.] • *Saamen von grësern/Saamen von Græsern u. Futterkræutern* [G.]	Luzerne 'alfalfa' (= *Medicago sativa*)

indicate the presence of a relationship between individual memories and collective social memory; in this case, horticultural knowledge, the body of knowledge shared and contributed to by eighteenth and nineteenth-century nurserymen. These memories, or testimonies, shrouded in historical uncertainty, can find meaning when "placed in relation" with each other in a "universe of constructed data" drawn from the other primary historical sources of the study (2016:21).

In interactions between nurserymen, their suppliers, and clientele, a consistent and mutually agreed-upon plant name was necessary to conduct trade, and in a large nursery, these names totaled in the thousands. Plant nurseries in nineteenth-century Britain and their plant names are fruitful sources for exploring the cultural domain of knowledge and learning in a horticultural context. Unfortunately, the content of this cultural domain is not readily accessible for ethnobotanical analysis due to the limitations of historical sources and the absence of living research collaborators.

The basis for analyzing cultural domains lies in free listing, an elicitation technique where an informant provides a mental inventory of a given domain from memory (for example, Vogl and Puri 2004). Freelist inventories allow the researcher to understand how knowledge is shared and conceptualized amongst a group of people. The inventories of plants reproduced in stock catalogs do not come from memory and, consequently, are not freelists; they function to systematically organize nature according to the needs of commerce.

Medeiros contends, however, that interpreting documents through the historical ethnobotanical approach helps to characterize "the socio-cultural community of [the time studied] by revealing its shared knowledge and values" (2010:137). Thus, because the Loddiges catalogs list the stock of plants and seeds available at their nursery, they must also offer insight into how plants were named and conceptually organized amongst nurserymen and their clientele. Moreover, any further naming and classification of plants apart from their taxonomically assigned specific and generic epithet in the nursery reflects the horticultural-culture of the time and its body shared knowledge.

Results

The Conceptual Organization of Nursery Plants

Every nursery plant needed a unique name to identify it to the nurserymen and their customers. The Loddiges nurserymen formulated plant names through Linnaean taxonomy and a vernacular classification system. Loddiges nurserymen conceptually understood and organized plants through a Latin binomial of genus and species that also belonged to a larger class and order of life forms as prescribed by floral morphology and the *systema sexuale* of Linnaeus. Horticultural characteristics defined a subordinate class beyond species. The Loddiges catalogs include many plants with these types of varietal names. For example, *foliis variegatis* refers to variegated foliage, and *lutea planta* refers to a golden, yellow-colored plant.

Apart from their Latin binomial or popular name, plants in the Loddiges nursery were also understood as belonging to broader groups based upon their culture in Britain. The first two Loddiges Catalogs grouped plants into "divisions" (1777, 1787), a practice that continued in all subsequent catalogs. These divisions were formed around characteristics relating to the plant and its growing conditions, namely frost and cold tolerance (Table 1).

Some divisions were used infrequently, while others were used for all catalogs. Additionally, certain divisions were strictly taxonomic. An example is the division "palms," comprising members of the palm family (Arecaceae), as well as some members of the cycad family (Cycadaceae). Unsurprisingly, palms also belonged to the division "hothouse" plants in Britain's temperate climate. These examples illustrate the relative complexity of plant names and their conceptual organization in the Loddiges nursery. For example, a palm species was known by its Latin binomial, horticultural division(s) ("hothouse" and "palm" plant), and perhaps even a varietal name inscribed in Latin.

Apart from novel, exotic species, the Loddiges nursery also offered for sale plants commonly known by only a popular name. The naming of these plants contrasts with other catalog species, such as those grown in greenhouses and hothouses. Rare plants were desired out of novelty and scholarly pursuit and were known only by Latin binomials. Conversely, plants referred to with vernacular names were cultivated in kitchen gardens and small plots for subsistence and market trade. Different naming conventions demonstrate that nurserymen were "peculiarly sensitive to the plant needs of an emerging

Table 2 These vernacular names were randomly selected from the multilingual 1783 edition of the Loddiges stock catalog as examples of plants with economic and alimentary uses. English glosses are provided from the French and German names listed in the catalog. An approximate taxonomic identification is also given.

Division	Names in Catalog
Kitchen Garden Seeds	'Canterbury bean' (Fabaceae sp.); 'Kidney bean' (*Phaseolus vulgaris*); 'Salsify' (*Tragopogon porrifolius*); 'Yellow purslane' (*Portulaca* sp.)
Bulbs for the Floral Trade	'Ranunculus' (*Ranunculus* sp.); 'Tulip' (*Tulipa* sp.); 'Primrose' (*Primula vulgaris*)
Grass and Herb Seeds for Animal Fodder	'Timothy grass' *(Phleum pratense*); 'Red clover' (*Trifolium pratense*)

middle class" (Alcorn 2020:19) and could tailor how they named plants to better suit their clientele. This responsiveness is evidenced in the Loddiges catalogs that list species with economic and alimentary uses, which are more attractive to the middle class, using only vernacular names (see 1777, 1787 editions) (Table 2).

The vernacular names published in the 1783 stock catalog were formed through a composition of primarily two to three elements. The core of a Loddiges vernacular name consists of a plant name root, to which various descriptive elements could be added (Table 3). As the nursery entered the nineteenth century, it began to specialize more in exotics, plants known solely by a Latin binomial, and the use of common names tapered off in the catalogs.

Non-Linnaean names are found in highest abundance in the earliest editions of the nursery's catalogs, a period associated with the nursery's founder, Joachim Conrad Loddiges (1738–1826), before the business came to be known as Loddiges & Sons. To illustrate the importance of more popularly known names, of the 1783 stock catalogs' 10 divisions, all but one division employ the use of vernacular names. The variation seen in vernacular names points towards a more distinctive approach to structuring and conceptualizing nursery-based plant knowledge, operating alongside a more structured and complementary Linnaean taxonomy. The descriptive elements used in vernacular names fall into seven categories: 1) Colors, 2) Geographic locale, 3) Morphology, 4) Objects, 5) Qualities, 6) Scarcity, and 7) Use (Table 4). These descriptive elements signified to the customer important qualities related to the plant, such as its appearance, growth habit, and use.

The two coexisting naming conventions employed in the Loddiges nursery, taxonomic and horticultural, can be outlined as follows, using an example from the 1818 edition of *The Botanical Cabinet,* the flowering tree *Camellia japonica var. alba plena* (Figure 1). The conceptual organization of plants in the Loddiges nursery begins with the domain of nursery plants. Each nursery plant also belonged to a "division" of plants. Divisions related to the plant's culture in Britain's cool climate. Thus, the sometimes

Table 3 In the Loddiges stock catalogs, vernacular plant names are composed of a root, to which descriptive elements could be attached. These examples were randomly selected from the 1783 edition of the Loddiges stock catalog to illustrate the composition of their nursery's plant names. The categories of the name's descriptive elements are also given in parentheses.

Catalog Name	Plant name root	Descriptive Element(s)	Descriptive Element(s)
"Yellow Sea Flax"	*flax*	*yellow* (color)	*sea* (geographic locale)
"Many jointed Indian Fig"	*Indian fig*	*many jointed* (morphology)	
"Toothache Tree"	*tree*	*toothache* (use)	
"Dwarf Hedge-hog Aloe"	*aloe*	*dwarf* (morphology)	*hedge-hog* (morphology)

Table 4 These descriptive elements were randomly selected from the 1783 edition of the Loddiges stock catalog to offer examples of the eight different categories that encompass Loddiges vernacular plant names: 1) Color, 2) Geographic Locale, 3) Morphology, 4) Objects, 5) Qualities, 6) Scarcity, and 7) Use.

Category	Descriptive Elements
Color	*scarlet; cinereous; fleshcoloured*
Geographic Locale	*Tartarian; Pennsylvanian; Indian, Guernsey; maritime; Hottentot*
Morphology	*saw leaved; variegated; rosemary leaved; pear shaped*
Objects	*torch*
Qualities	*sugar; viscous; wild; true*
Scarcity	*common*
Use	*soap; physick*

frost-intolerant *Camellia* spp. was assigned to the division of "greenhouse" plants.

Each species in the catalogs belonged to a class and order based on its reproductive morphology, in the case of *C. japonica var. alba plena*, class *Monadelphia* (plants with all stamens in each flower fused) and order *Polyandria* (plants with many stamens inserted in their receptacle). They were then given a Latin binomial. Some species, like *C. japonica*, exist in various horticultural forms. A third, varietal epithet in Latin was given to such examples. Like all others in *The Botanical Cabinet*, a finely produced color image accompanied the written description of *Camellia japonica var. alba plena.*

Popular divisions were given special consideration in the catalogs, such as the division "hardy perennials". Species in this division are marked with symbols relating to the plant's height, quality, and "signatures". Intuitively, these symbols aided in interpreting what Curtis termed the "hard-founding Latin names" that "tend to discourage" cultivation (1783:15), a phenomenon similarly observed by the Loddiges nurserymen, who listed more popularly known alimentary and economic plants with vernacular names instead of hard-sounding Latin names. Included for the "*les Amateurs*," the lovers of plants, "*qui auront la bonté de m'honorer de leurs ordres…*" [who will be kind enough to honor me with their orders…] (Loddiges 1783:viii), these names and symbols were for the enthusiast gardener, those "not botanists by profession," to assist in making informed decisions in the planning and management of their gardens.

In their catalogs, the Loddiges nurserymen make clear that the knowledgeable and informed placement of plants in a garden is critical. The nurserymen strove to ensure their customers, regardless of botanical or scientific prowess, could make knowledge decisions in the garden. These symbols and names were offered, lest one may fall victim to "*tous les inconveniens et incongruités de pluſieurs Jardins, òu l'on ne manque pas de voir des petits arbuſtes occupant la place, à la quelle ſe devroit trouver un arbre de haute futaye,*" [all the inconveniences and incongruences of many gardens, where one never fails to see small shrubs occupying the place where a tall tree should be found] (1783:vii).

The Provenance of Nursery Plants

The provenance of the Loddiges catalog's stock shows a dynamic and internationally connected nursery. Some plants offered for sale by the Loddiges were introduced into cultivation in Europe many years, decades, or even centuries prior. The process of bringing a plant to the nursery began with the collectors and correspondents who extracted the most desirable plants from their habitat. These plants were then sent to the Loddiges, where they were cultivated in the nursery's grounds and later offered for sale. While the Loddiges' stock focused on regions like South Africa, Australia, and the United States, the nursery sold plants collected from all continents except Antarctica.

During 1818–1830, the average date of introduction for a plant in the Loddiges nursery was 1798 (Table 5), suggestive of the amount of time it took for a species to enter cultivation and the marketplace following collection. Despite this lag, newly discovered species introduced from across the globe could quickly find themselves under cultivation. The 1826 and 1830 catalogs list plants introduced into cultivation merely a year prior. Several entries in *The Botanical Cabinet* also mention species introduced into cultivation and later lost into horticultural obscurity.

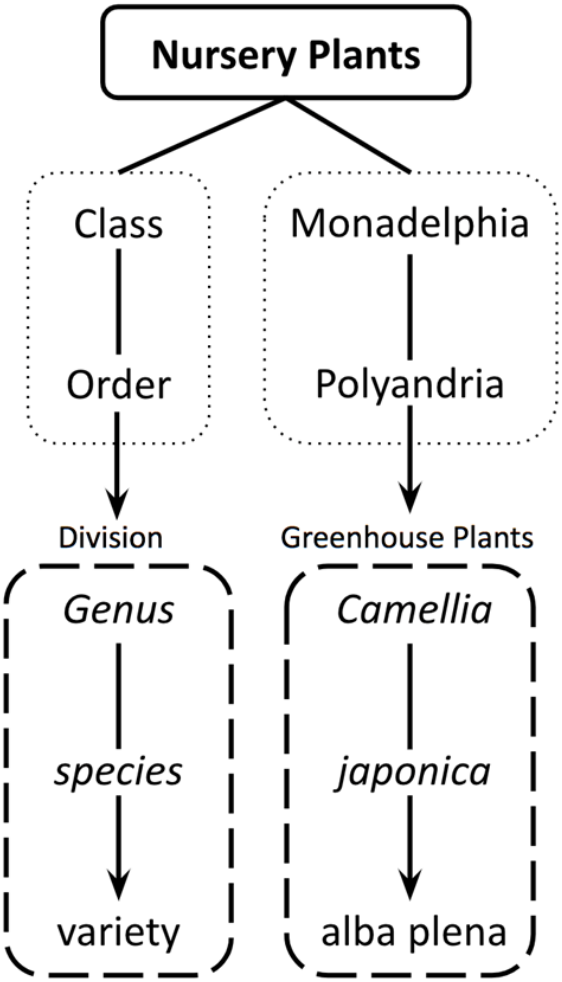

Figure 1 The conceptual organization of the Loddiges plant names can be outlined as follows. On the right is an example using a species from the 1818 edition of *The Botanical Cabinet*, *Camellia japonica var. alba plena*.

Evidently, when lesser-known plants fell out of fashion, their presence in British gardens could effectively disappear (Bohn 1850).

Along with dates of introduction, some of *The Botanical Cabinet* entries also reference the country from which plants were collected and introduced. At least 56 countries supplied the Loddiges nursery with plants, revealing a rich network of international correspondence and trade (Figure 2). The five countries most collected from were South Africa (n=340 mentions), Australia (n=192), the United States (n=87), China (n=47), and Brazil (n=39).

The analysis of the Loddiges nursery stock's provenance reveals a largely unexplored connection between the historic plant nursery and the exploration and colonization of tropical and temperate areas. Indeed, the history of British and European colonialism is intimately rooted in the extraction and movement of natural capital, especially in the form of economically valuable plants (Brockway 2002; DeLoughrey 2007). It is not a coincidence that the Loddiges' stock focused extensively on plants from South Africa, Australia, and North America, regions recently explored and colonized by European powers.

To illustrate this point, the Holy Roman Emperor, Joseph II, sent imperial gardener Georg Scholl to collect plants in the southern hemisphere and the South African Cape for the Royal Botanical Garden in the late eighteenth century (Nelson and Oliver 2004). Scholl would later regularly correspond with the Loddiges nurserymen and would also be responsible for introducing several species of Cape heathers (*Erica* spp.) into the nursery, a genus that was a primary focus of the business. Connections to other former colonial locales continue through regular Loddiges correspondent William Roxburgh. While working as a botanist, he helped introduce many Indian species into the nursery, and connects the Loddiges to the development of economic botany in the Indian subcontinent (see Axelby 2008; Sangwan 1992; Thomas 2006).

Discussion

While the Loddiges nursery is well studied in the context of gardening and horticultural history, ethnobotanists have yet to notice its significance. Just as "the place of the nursery trade… in the history of botany remains underappreciated" (Alcorn 2022:732), so too does the place of the trade, nurserymen, and their stock catalogs as ethnobotanical research subjects. The Loddiges catalogs and their illustrated supplement, *The Botanical Cabinet*, are unique and valuable data sources on nursery-based plant knowledge; they preserve traces of their creators and the environment in which they were produced.

Despite being limited by the nature of these sources, this historical ethnobotanical analysis of the Loddiges nursery's catalogs presents a wealth of findings related to the nursery. This helps further an

Table 5 Each year of the 1818-1830 *Botanical Cabinet* is shown under the heading "Catalog Years". The average date of all plant introductions is given for each catalog year, along with the earliest and most recent account of a plant introduction in each catalog year.

Catalog Years	Average Date	Earliest Date	Most Recent Date
1818	1791	1731	1815
1820	1793	1731	1818
1823	1797	1610	1821
1826	1802	1665	1825
1830	1804	1714	1829

understanding of the environment in which the nursery operated and historical human-plant relationships more generally. The surviving catalogs of the Loddiges nursery also reveal their work in importing exotic novel plants into Britain. While the Loddiges cultivated plants introduced from across the globe, the catalogs reveal that the nursery specialized in certain geographic areas, particularly the Cape region of South Africa. The rate at which plants entered the Loddiges nursery and cultivation varied greatly.

While the Loddiges Catalogs contain elements of nursery-based plant knowledge, they cannot furnish a fully comprehensive view of the vast body of plant knowledge held by the nurserymen. Instead, what the catalogs can reveal is the conceptual organization of plants in the nursery and the different types of nomenclature employed by the nurserymen. Beyond the scientifically defined name of class, order, genus,

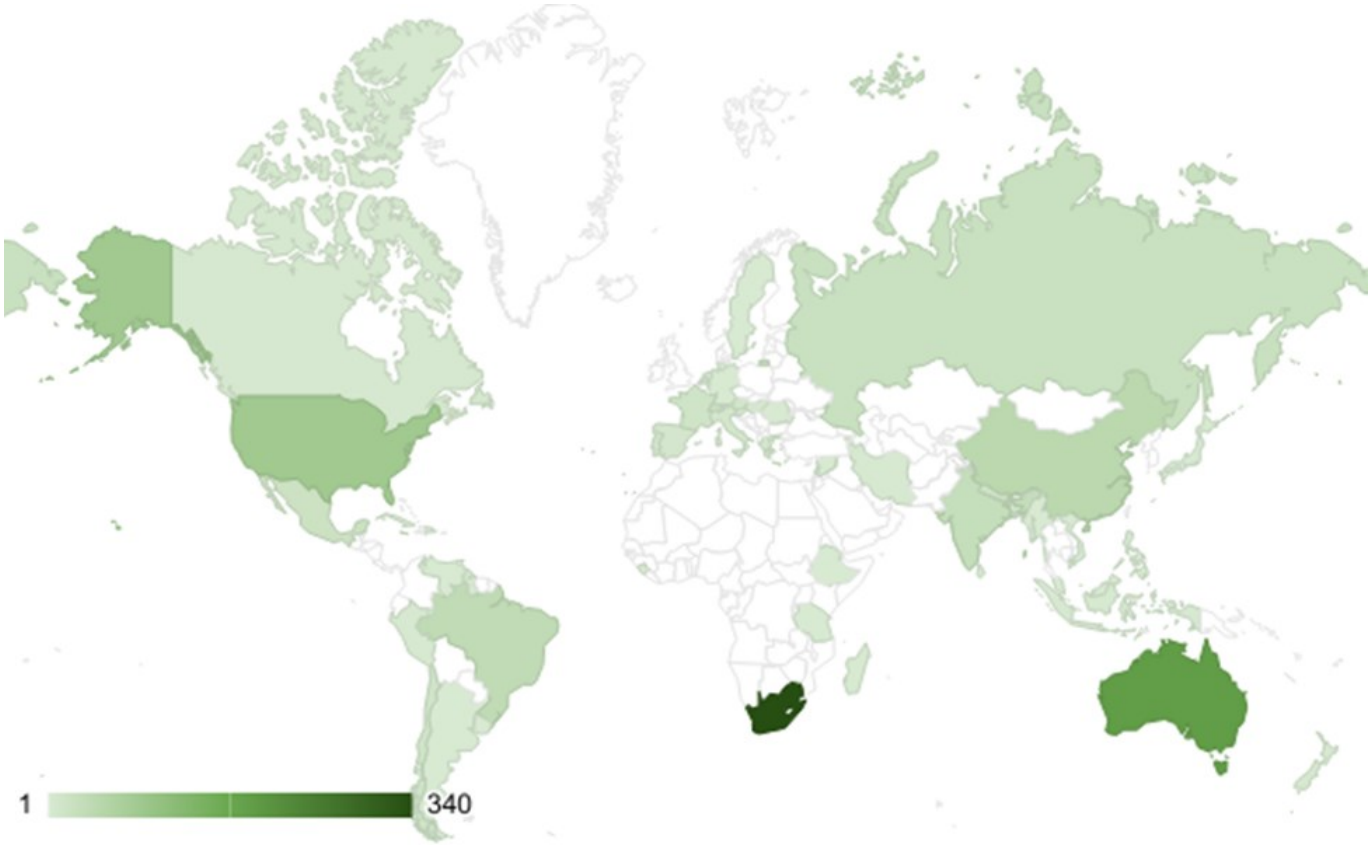

Figure 2 This heat map shows the total number of times a country is mentioned in the 1818-1830 editions of the Loddiges catalogs and *The Botanical Cabinet*, as indicated by the scale in the left corner.

and species, plants were also understood through vernacular names. The Loddiges nurserymen used richly descriptive vernacular names to suit their diverse clientele's needs. Apart from these different types of names, plants also belonged to divisions that related to their culture in Britain's temperate climate. These divisions were, for the most part, not taxonomic and instead reflect the horticultural-culture of the time.

As plant nursery stock catalogs have yet to be studied by historical ethnobotanists and ethnobotanists more generally, this study presents a theoretical framework and methodology for engaging with the nursery-based plant knowledge. This knowledge is reflected and codified in seemingly mundane and overlooked sources, for example the stock catalogs of a late-Georgian era plant nursery. These contributions see their home in a growing body of literature on historical ethnobotany, widening the dimensions of ethnobotanical research to include topics such as the history of nurseries, nurserymen, and horticulture.

Moreover, the study reinforces the place of plant nurseries as valuable sites for ethnobotanical research. While driven by profit, through daily encounters with plants, nursery work intrinsically leads to the production of specialized knowledge, especially in the case of novel, exotic plants coming into a nursery's grounds. The extent of the Loddiges nursery's international operations clearly attests to the work undertook by the nurserymen to understand and successfully grow their plants, producing and disseminating nursery-based plant knowledge along the way. These findings broaden the scope of historical ethnobotanical research to include unexplored areas such as historical commercial plants nurseries, and invite a host of other historical sources, like stock catalogs, to be examined more critically.

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