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DATA NOTE

REVISED Local ecological knowledge and folk medicine in historical Estonia, Livonia, Courland and Galicia in Northeastern Europe, 1805-1905

[version 2; peer review: 2 approved]

Previous title: Local ecological knowledge and folk medicine in historical Estonia, Livonia, Courland, and Galicia, 1805-1905

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Abstract

Background: Historical ethnobotanical data can provide valuable information about past human-nature relationships as well as serve as a basis for diachronic analysis. This data note aims to present a dataset which documented medicinal plant uses, mentioned in a selection of German-language sources from the 19th century covering the historical regions of Estonia, Livonia, Courland, and Galicia.

Methods: Data was mainly entered by systematic manual search in various ethnobotanical historical German-language works focused on the medicinal use of plants. Data about plant and non-plant constituents, their usage, the mode of administration, used plant parts, and their German and local names was extracted and collected into a database in the form of Use Reports.

Keywords

ethnomedicine, historical ethnobotany, Baltics, environmental history, herbals

Open Peer Review

Approval Status ✓ ✓

	1	2
version 2 (revision) 13 Sep 2022		✓ view
version 1 04 Mar 2022	✓ view	? view

1. **Inga Sile**, Latvian Institute of Organic Synthesis, Riga, Latvia

2. **Irene Teixidor-Toneu**, University of Oslo, Oslo, Norway
CNRS, Paris, France

Any reports and responses or comments on the article can be found at the end of the article.

This article is included in the European Research Council (ERC) gateway.

This article is included in the History and Archaeology gateway.

This article is included in the Horizon 2020 gateway.

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Author roles: Anegg M: Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Project Administration, Resources, Software, Writing – Original Draft Preparation; **Prakofjewa J**: Conceptualization, Investigation, Methodology, Project Administration, Resources, Writing – Review & Editing; **Kalle R**: Conceptualization, Data Curation, Validation; **Sõukand R**: Conceptualization, Data Curation, Funding Acquisition, Investigation, Methodology, Project Administration, Resources, Supervision, Validation, Writing – Review & Editing

Competing interests: No competing interests were disclosed.

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First published: 04 Mar 2022, **2**:30 https://doi.org/10.12688/openreseurope.14406.1

REVISED **Amendments from Version 1**

The new version displays minor changes, essentially clarifications based on the reviewer's suggestions. We have been more specific in the title, modifying it and including the name of the general study region. We have clarified the study site and included one figure which shows maps of investigated areas. A short paragraph describing the reasons for our focus on German language sources was added. Hence, four new references were included in the dataset, and one reference was corrected. We changed keywords and provided new ones not present in the title to improve the visibility of the Data note and Dataset in searches. The following changes have been made to the text in the revised version and have not changed the main results of our work.

Any further responses from the reviewers can be found at the end of the article

Plain language summary

This data note is based on a dataset (Anegg *et al.*, 2021) which described medicinal plant uses in the 19th century in historical Estonia, Livonia, Courland and Galicia, which were located in Northeast Europe. The studied region corresponds roughly to present-day Latvia (Livonia and Courland), Estonia and Ukraine (Galicia). The presented dataset is based on a digitized collection of German texts will be helpful to researchers who study the history of knowledge, science, and medicine.

Introduction

Recent studies are underlining the diverse application possibilities of historical ethnobotanical research and the re-valorised value of ethnobotanical data. The analysis of such data can contribute to understanding in which cultural fields plants are important and used, offer a rich basis of information for ethnobotanical and diachronic research, helping to understand better how societies and their folk culture develop and change over time, their dealing with natural resources, their interaction with and influence on ecosystems and the flora, as well as help in understanding modern medicinal practices better and contribute to the approval of new herbal medicines.

Methods

The primary sources included in the presented database were identified through literature research focusing on local medicinal plant use in the historical regions of Estonia, Courland, Livonia, and Galicia (Figure 1). In addition, we included in the sample publications published between 1805 and 1905 solely in the German language as inclusion criteria (Table 1). A range of relevant books and articles were used for extracting the historical indications of medicinal plant taxa which are treated as inclusion criteria (accessible botanical, historical, ethnographic literature describing the use of plants for medicinal purposes). Certain categories of sources are excluded from the dataset because of their non-circulating status (e.g., rare books). Main sources included the online libraries of the Online Catalogue ESTER (Estonian Library Network Consortium), the Biodiversity Heritage Library (Biodiversity Heritage Library), the Baltic Digital Library (Bałtycka Biblioteka Cyfrowa) and google scholar, as well as citations and mentions of other relevant German-speaking authors (searching for documents which possess keywords: "Volksmedizin", "Volksheilmittel", "Heilpflanzen", "Oekonomisch-technische Flora"). The limited geographical and temporal scale allows conducting a comprehensive comparative study to understand the biocultural diversity of medicinal

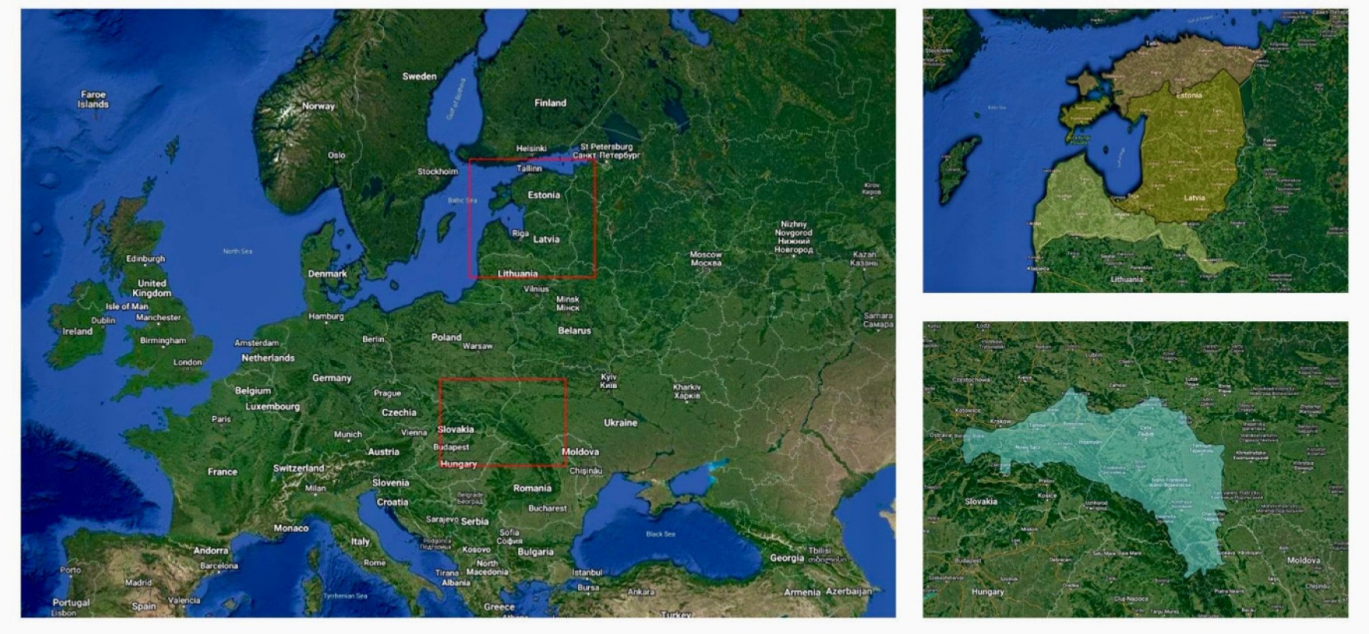


Figure 1. Map of the study area.

Table 1. List of German language sources used in this study (Anegg *et al.*, 2021).

Reference	Author	Title	Place of publication
Friebe, 1805	Friebe, Wilhelm Christian	Oekonomisch-technische Flora von Liefland, Ehstland und Kurland	Riga
von Luce, 1829	Luce, Johann Wilhelm Ludwig von	Heilmittel der Ehsten auf der Insel Oesel	Pernau
Hoelzl, 1861	Hoelzl, Karl	Botanische Beiträge aus Galizien	Vienna
Wiedemann, 1876	Wiedemann, Ferdinand Johann	Aus dem inneren und äusseren Leben der Ehsten	Vienna
Aaronson, 1891	Aaronson, Dr. Emil	Über die Volksheilmittel der Letten	Mitau
Alksnis, 1894	Alksnis, Jakobs	Materialien zur lettischen Volksmedizin	Dorpat
Bermann & Ludwig, 1904	Bermann, P. und Ludwig, Mag. Pharm. F.	Pflanzen des Rigaschen Krautinarktes	Riga
Ludwig, 1905	Ludwig, Mag. Pharm. F.	Die Heilpflanzen des Rigaschen Krautmarktes	Riga

ethnobotany of the region and to create a sound scientific base for future comparisons with current field-work results from the region.

The research was part of a wider study, namely the ERC-funded DiGe project, aiming to understand the patterns of change in ethnobotanical knowledge systems in Eastern European countries. Specifically, we have selected the period and space to fill the gap in historical ethnobotanical studies. German language was the dominant language of scientific communication in the studied period. So German language herbals devoted to Baltics were not studied from ethnobotanical point of view yet. The growing interest in the historical ethnobotany of Eastern Europe may be observed - it was already have done a dataset of medicinal plants, based on written sources in Estonian (Sõukand & Kalle, 2008). From historical point of view the ethnobotanical data affecting studied region was already systematised and analyzed by Estonian scholars (Kalle *et al.*, 2022; Kalle & Sõukand, 2021). A more detailed analysis of medicinal plant records documented in the dataset was presented in the paper (Prakofjewa *et al.*, 2022).

Due to the limited relevant written records in German language, every possible work was considered at first. For analysis purposes, we excluded primary sources that did not fulfil the following criteria: availability of local names and specific historical periods. In the next step, the selected public-domain books were carefully scanned and then was put into a Microsoft Excel 2013 spreadsheet. Thus, data on the local ecological knowledge and folk medicine were compiled from eight German historical ethnobotanical studies conducted in Estonia, Livonia, Courland, and Galicia, published between 1805 and 1905 (Table 1).

Every independent use in the sources was considered as a Use Report (UR) and was entered into a separate row in the spreadsheet. For each usage mentioned, the following information was elicited from the text, if present:

A. source
B. page number, where UI can be found
C. constituent type
D. constituent name stated in the original source
E. original German name of constituent, if provided
F. recent English interpretation
G. local name(s) of the constituent
H. preparation of constituent
I. plant part used (if applicable)
J. mode of administration
K. original usage of constituent
L. recent interpretation of medicinal usage
M. medicinal category (according to WHO, 2018)
N. recent interpretation of food usage
O. recent interpretation of other usage
P. additional comments

Besides recording all the medicinal usages of the different plants stated, information on other usages like food or veterinary medicinal uses were transcribed from the chosen texts and books as thoroughly as possible to allow further data mining and comparison possibilities in future studies. Moreover, non-plant constituents were transcribed for the same reason stated above. It should be noted that the "constituent name stated in original" reported plant names which are stated in German and Latin languages, but "local name" is always stated as indigenous name (if recorded).

In an additional step, important categories for analysis and future comparison with data from other investigations were unified according to the classifications used in other ethnobotanical and ethnomedicinal studies to facilitate comparisons with similar datasets.

These categories are

Q. plant name according to Plants of the World Online (POWO) (POWO, 2021)

R. plant family current

S. medicinal use according to the International Classification of Primary Care (ICPC-2) (WHO, 2012)

T. medicinal category short according to ICPC-2 (WHO, 2012)

U. medicinal category abbreviation according to ICPC-2 (WHO, 2012)

If an identification or accurate interpretation of a given constituent or any information of one of the categories stated above was not possible, the respective information was marked with a question mark in brackets '(?)'.

The stated plant parts that were used were categorised as follows (with their respective abbreviation in square brackets): bark [BARK], exudates (including gums, resins, and saps) [EXUD], flowers (including inflorescences and parts thereof) [FLOW], fruits [FRUI], herbs (= aerial parts, including branches and shoots) [HERB], leaves [LEAV], seeds [SEED], subterranean parts (including bulbs, rhizomes, roots, and tubers) [SUBT] and wood [WOOD]. If the part used was not stated, then the part was classified as herbs. This categorisation follows the terminology used by the authors contributing to this study. Statements concerning "die Pflanze" (the plant) or "Grünzeug" (greens) were also classified as herbs. Otherwise, the parts stated by the authors were the same in English terms, hence the categorisation. Furthermore, other studies, like Staub *et al.* (2016) and Spałek *et al.* (2019), also used this categorisation.

The mode of administration was recorded and divided into either internally (internal ingestion in any manner) or externally (for example, in the form of ointments or compresses) administered.

The recent interpretation of the ailments stated was done according to the International Statistical Classification of Diseases and Related Health Problems, Version 11 (ICD-11) of the World Health Organisation (WHO) (WHO, 2018). This classification is divided into the following ailment categories:

1 - Certain infectious or parasitic diseases

2 - Neoplasms

3 - Diseases of the blood or blood-forming organs

4 - Diseases of the immune system

5 - Endocrine, nutritional or metabolic diseases

6 - Mental, behavioural or neurodevelopmental disorders

7 - Sleep-wake disorders

8 - Diseases of the nervous system

9 - Diseases of the visual system

10 - Diseases of the ear or mastoid process

11 - Diseases of the circulatory system

12 - Diseases of the respiratory system

13 - Diseases of the digestive system

14 - Diseases of the skin

15 - Diseases of the musculoskeletal system or connective tissue

16 - Diseases of the genitourinary system

17 - Conditions related to sexual health

18 - Pregnancy, childbirth or the puerperium

19 - Certain conditions originating in the perinatal period

20 - Developmental anomalies

21 - Symptoms, signs or clinical findings, not elsewhere classified

22 - Injury, poisoning or certain other consequences of external causes

X - Extension Codes (for example, for agents)

The unification of the recent interpretation of the ailments was carried out in accordance with the ICPC-2 of the World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA) International Classification Committee (WHO, 2012). This classification consists of the following categories (with the respective abbreviations used by the authors in the database and analysis in square brackets):

A - General and Unspecified diseases [Geun]

B - Blood, Blood Forming Organs and Immune Mechanism [Blim]

C - Culture Bound Syndrome (CultB)

D - Digestive [Dige]

F - Eye [Eye]

E - Ear [Ear]

K - Cardiovascular [Card]

L - Musculoskeletal [Musc]

N - Neurological [Neur]

P - Psychological [Psyc]

R - Respiratory [Resp]

S -Skin [Skin]

T - Endocrine/Metabolic and Nutritional [Endo]

W - Pregnancy, Childbearing, Family Planning [Pcfp]

X - Female Genital [Genif]

Y - Male Genital [Genim]

Z - Social Problems [Soci]

Those categories were segmented further into symptoms/complaints, infections, neoplasms, injuries, congenital anomalies, and other diagnoses. This classification was used for further analysis. This ICPC-2 categorisation was used for further analysis because it will facilitate easier comparison with other studies in the future. Furthermore, the ICPC-2 is less clinical than the ICD, making the classification of reported ailments and symptoms easier and more applicable to the 'ethnomedical reality' (Staub *et al.,* 2015; Staub *et al.,* 2016). Despite the fact that in the documented historical sources it was not found special categories (e.g., Y- Male Genital), we kept the ICPC-2 categorisation for future perspective of the development of the database and adding new German-speaking authors. The category of 'culture bound syndrome' was added to reflect the uses associated with local customs and beliefs not attributable to the specific disease categories.

Additional categories were added by the authors to cover non-medicinal usages. They are as follows:

a) "Accessories and Decoration" [ACDE] – including usages like wreaths, added to bouquets, etc.

b) "Body" [BODY] – including usages for body hygiene, restoring hair, baths generally, etc.

c) "Food" [FOOD] – including usages of plants as food or in food and beverages.

d) "Harmful" [HARM] – including reports of poisonous plants or usages to kill someone.

e) "Insecticides" [INSE] – including usages as an insecticide or to drive away insects.

f) "Other" [OTHE] – including all usages which do not fit into any of the other categories.

h) "Veterinary" [VETE] – including veterinary-medicinal usages concerning animals and pets.

i) "Cultural" [CULT] – including culture-bound usages of plants in a specific cultural setting.

To avoid misidentifications and misinterpretations of plants or historical technical medicinal terms, several sources were used for crosschecking past pathologies and plant names, including the Atlas of the Estonian Flora (2020), Beiche (1872), the GenWiki of the Verein für Computergenealogie e.V. (2020), GBIF.org (2021), Genaust (2013), Hiller & Melzig (2006), POWO (2021) and Tutin *et al.* (1993).

Disclaimer: the database is designed to give a general overview of the sources to the best knowledge of the authors. In case of any need for clarification, consult the original source.

Data availability

Underlying data

Zenodo. Local Ecological Knowledge and folk medicine in historical Esthonia, Livonia, Courland and Galicia, 1805–1905. https://doi.org/10.5281/zenodo.6106746. (Anegg *et al.,* 2021).

This project contains the following underlying data:

- Anegg *et al.*_Database.xlsx. (An excel database was created by manually selecting relevant information and putting it into the database. Every independent use in the sources was accounted for as Detailed Use Reports (DUR), where the informant mentions specific medicinal use based on the category uses by the specific author of the plant part (p, e.g., fruits, leaves, aerial parts, flowers, etc. if provided), considering also the form in which the plant part is used (f, e.g., fresh, dried, frozen, refrigerated) and specific way of preparation. Every DUR was entered on a separate row in the excel spreadsheet).

Data are available under the terms of the Creative Commons Attribution 4.0 International license (CC-BY 4.0).

Author contributions

Conceptualisation: Anegg, Prakofjewa, Kalle, Sõukand

Data Curation: Anegg, Kalle, Sõukand

Formal Analysis: Anegg

Funding Acquisition: Sõukand

Investigation: Anegg, Prakofjewa, Sõukand

Methodology: Anegg, Prakofjewa, Sõukand

Project Administration: Anegg, Prakofjewa, Sõukand

Resources: Anegg, Prakofjewa, Sõukand

Software: Anegg

Supervision: Sõukand

Validation: Sõukand, Kalle

Writing – Original Draft Preparation: Anegg

Writing – Review & Editing: Prakofjewa, Sõukand

Acknowledgments

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PubMed Abstract | **Publisher Full Text** | **Free Full Text**

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PubMed Abstract | **Publisher Full Text** | **Free Full Text**

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PubMed Abstract | **Publisher Full Text**

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Open Peer Review

Current Peer Review Status: ✔ ✔

Version 2

Reviewer Report 11 October 2022

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✔ **Irene Teixidor-Toneu**
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The map of the study area is a great addition. Please do indicate which area/colour corresponds to which named region either by adding the names in the map or explaining this in the figure legend.

Something is still unclear to me. Are the four regions of study pre-selected (in which case, the question arises as to why this specific selection of regions and not other parts of Eastern Europe) or the four regions result from the search of data on herbal medicines in German in Eastern Europe (as in, there is only 19th century information in German in Eastern Europe for these four regions)?

In the list of information present in the database, point B cites an acronym (UI) that is not explained.

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: ethnopharmacology, ethnobotany, historical ethnobotany, biocultural approaches to conservation, evolutionary anthropology

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Version 1

Reviewer Report 09 May 2022

https://doi.org/10.21956/openreseurope.15548.r29085

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This is a relevant and highly valid report on a dataset. I have made comments to improve the rationale for creating the database, as some gaps exist at present. I find the protocols appropriate and the work technically sound. Some details could be added to the methods and materials section and I have made suggestions to improve its usability and presentation.

Abstract
“historical regions of Estonia, Livonia, Courland, and Galicia” – it’s too vague. Galicia is also a region in Spain, but given that the documents are in German, I find it confusing. Add perhaps the state these historical regions are in brackets? Or the general region e.g., Eastern Europe? Baltics? In the introduction, a couple of sentences describing the overall or specific regions would be welcome.

“Data was mainly obtained” – how were data not obtained by systematic manual search?
“Various relevant historical German-language works” – how many? Relevant in what sense? Perhaps just delete the word “relevant”?

Keywords
I would suggest using words not present in the title to improve visibility of the paper in searches.

Introduction
“recent value of ethnobotanical data” – I disagree that the value is “recent”, perhaps re-valorised?

Methods
It is not clear why these regions were chosen (a map would be most welcome), why the specified time period, or why focus on German language sources. These questions could perhaps be addressed in the introduction. Are sources in other languages about these regions already systematised? Or are there plans to do so?

Does a description of each source accompany the database? Interpretation of medicinal plant use documented in historical sources heavily relies on understanding the author’s motivations and context of production of the source. Such information would be necessary for a broader use of the dataset.

In the methods “Use Instance” is used instead of “Use Report”, which is noted in the abstract. It would be good to be consistent with one or other phrasing.

What is the difference between “constituent name stated in original” and “local names”?

The inclusion of food and veterinary uses is highly welcome, for the purposes stated by the authors.

“Items with such a marking were excluded from the analysis” – I wonder if this sentence belongs to this text. As far as I understand, no analysis is expected in an Open Research Europe Data Note.

For the database to be fully expandable, I would suggest not to combine categories, even if some are not found in the current dataset (e.g., X – Female Genital, Y- Male Genital).

For the dataset to be easily usable, it should also include a tab with the codes used. I am aware that these can be found in associated publications, but including them in the dataset itself will facilitate further use.

Is the rationale for creating the dataset(s) clearly described?
Partly

Are the protocols appropriate and is the work technically sound?
Yes

Are sufficient details of methods and materials provided to allow replication by others?
Partly

Are the datasets clearly presented in a useable and accessible format?
Partly

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: ethnopharmacology, ethnobotany, historical ethnobotany, biocultural approaches to conservation, evolutionary anthropology

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 25 Aug 2022

Prakofjewa Julia

This is a relevant and highly valid report on a dataset. I have made comments to improve the rationale for creating the database, as some gaps exist at present. I find the protocols appropriate and the work technically sound. Some details could be added to the methods and materials section, and I have made suggestions to improve its usability and presentation.
Response: Thank you very much for your careful reading and helpful comments and suggestions.
Abstract “historical regions of Estonia, Livonia, Courland, and Galicia” – it’s too vague. Galicia is also a region in Spain, but given that the documents are in German, I find it confusing. Add perhaps the state these historical regions are in brackets? Or the general region e.g., Eastern

Europe? Baltics? In the introduction, a couple of sentences describing the overall or specific regions would be welcome.
Response: We are very grateful to the reviewer for this comment. We have been more specific in the title, modifying it as follows. "Local ecological knowledge and folk medicine in historical Estonia, Livonia, Courland and Galicia in Northeastern Europe, 1805-1905". We have clarified it in the introduction as follows: "This data note is based on a dataset (Anegg *et al*., 2021) which described medicinal plant uses in the 19th century in historical Estonia, Livonia, Courland and Galicia, which were located in Northeast Europe. The studied region corresponds roughly to present-day Latvia (Livonia and Courland), Estonia and Ukraine (Galicia)."

"Data was mainly obtained" – how were data not obtained by systematic manual search? "Various relevant historical German-language works" – how many? Relevant in what sense? Perhaps just delete the word "relevant"?
Response: Thank you to the reviewer for the careful reading. We have corrected it as follows.
"Methods: Data was mainly entered by systematic manual search in various ethnobotanical historical German-language works focused on the medicinal use of plants."

Keywords I would suggest using words not present in the title to improve visibility of the paper in searches.
Response: Thank you very much for your comment; we further specified the keywords as follows: "Keywords: ethnomedicine, historical ethnobotany, Baltics, environmental history, herbals"

Introduction "recent value of ethnobotanical data" – I disagree that the value is "recent", perhaps re-valorised?
Response: Thank you very much for bringing this to our attention. We have further corrected as follows. "Recent studies are underlining the diverse application possibilities of historical ethnobotanical research and the re-valorised value of ethnobotanical data."

Methods It is not clear why these regions were chosen (a map would be most welcome), why the specified time period, or why focus on German language sources. These questions could perhaps be addressed in the introduction. Are sources in other languages about these regions already systematised? Or are there plans to do so?
Response: We are grateful for these comments. We have added the map of the studied region in the Methods. We have further expanded, referring to previous articles published by members of our research group as follows. "The research was part of a wider study, namely the ERC-funded DiGe project, aiming to understand the patterns of change in ethnobotanical knowledge systems in Eastern European countries. Specifically, we have selected the period and space to fill the gap in historical ethnobotanical studies. German language was the dominant language of scientific communication in the studied period. So German language herbals devoted to Baltics were not studied from ethnobotanical point of view yet. The growing interest in the historical ethnobotany of Eastern Europe may be observed - it was already have done a dataset of medicinal plants, based on written sources in Estonian (Soukand *et al* 2008). From historical point of view the ethnobotanical data affecting studied region was already systematised and analyzed by Estonian scholars (Kalle

et al 2022, Kalle *et al* 2021)".
We have added the references as follows: Kalle R, Sõukand R. The name to remember: Flexibility and contextuality of preliterate folk plant categorization from the 1830s, in Pernau, Livonia, historical region on the eastern coast of the Baltic Sea. J Ethnopharmacol. 2021 Jan 10;264:113254. doi: 10.1016/j.jep.2020.113254. Kalle R, Pieroni A, Svanberg I, Sõukand R. Early Citizen Science Action in Ethnobotany: The Case of the Folk Medicine Collection of Dr. Mihkel Ostrov in the Territory of Present-Day Estonia, 1891–1893. Plants. 2022; 11(3):274. https://doi.org/10.3390/plants11030274 Sõukand R, Kalle R. Historistlik eesti rahvameditsiini botaaniline andmebaas (HERBA). [HERBA, the Estonian folk medicine database of plant use. 2008]. We have corrected it as follows: 1. Aaronson E: Ueber die Volksheilmittel der Letten. Magazin der Lettischliterärischen Gesellschaft. ed. A. Bielenstein, Mitau, 1891; 19(1): 185–203

Does a description of each source accompany the database? Interpretation of medicinal plant use documented in historical sources heavily relies on understanding the author's motivations and context of production of the source. Such information would be necessary for a broader use of the dataset.
Response: Thank you, we have specified it referring to previous articles published by our group as follows. "A more detailed analysis of medicinal plant records documented in the dataset was presented in the paper (Prakofjewa et al 2022)." We have added the reference as follows: Prakofjewa J, Anegg M, Kalle R, Simanova A, Prūse B, Pieroni A, Sõukand R. Diverse in Local, Overlapping in Official Medical Botany: Critical Analysis of Medicinal Plant Records from the Historic Regions of Livonia and Courland in Northeast Europe, 1829–1895. Plants. 2022; 11(8):1065. https://doi.org/10.3390/plants11081065

In the methods "Use Instance" is used instead of "Use Report", which is noted in the abstract. It would be good to be consistent with one or other phrasing.
Response: Thank you for your note. We have corrected it as follows. "Every independent use in the sources was considered as a Use Report (UR) and was entered into a separate row in the spreadsheet"

What is the difference between "constituent name stated in original" and "local names"?
Response: Thank you for bringing this to our attention. We have further expanded as follows. "It should be noted that the "constituent name stated in original" reported plant names which are stated in German and Latin languages, but "local name" is always stated as indigenous name (if recorded)".

The inclusion of food and veterinary uses is highly welcome, for the purposes stated by the authors.
Response: Thank you for noticing it. It contains all the uses mentioned in the sources.

"Items with such a marking were excluded from the analysis" – I wonder if this sentence belongs to this text. As far as I understand, no analysis is expected in an Open Research Europe Data Note.
Response: Thank you for noticing. We have deleted it.

For the database to be fully expandable, I would suggest not to combine categories, even if some

are not found in the current dataset (e.g., X – Female Genital, Y- Male Genital).
Response: Thank you, we have further expanded as follows. “Despite the fact that in the documented historical sources it was not found special categories (e.g., Y- Male Genital), we kept the ICPC-2 categorisation for future perspective of the development of the database and adding new German-speaking authors.”

For the dataset to be easily usable, it should also include a tab with the codes used. I am aware that these can be found in associated publications, but including them in the dataset itself will facilitate further use.
Response: Thank you for this idea which contributes to effectively deliver the information of this Data Note. We have developed the following dataset (Anegg et al 2021).

Competing Interests: No competing interests were disclosed.

Reviewer Report 21 March 2022

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This data note describes medicinal plant uses (also usages in food or veterinary) in the 19th century in historical Estonia, Livonia, Courland and Galicia. A systematic search has been conducted to collect relevant historical German-language works focused on the medicinal use of plants. Collected data are well structured in the database which can be useful to other researchers, especially those studying ethnobotany and ethnomedicine.

The rationale for the creation of the dataset is clearly described. The work is well organized and technically sound. This data note provides easy-to-understand and sufficient information about the methods and materials so that others can successfully replicate them. An excel database is clearly understandable and easy to use for searching or selecting specific information.

The work ‘Local ecological knowledge and folk medicine in historical Estonia, Livonia, Courland, and Galicia, 1805-1905’ is well performed and can be useful to analyze the development of folk culture, the traditions of folk medicine and changes over time. I have only one remark: the inclusion of such historical regions as Estonia, Livonia, and Courland sounds justified, but I am not sure if Galicia falls well within the mentioned regions. Perhaps you should add a sentence explaining why these regions have been chosen.

Is the rationale for creating the dataset(s) clearly described?

Yes

Are the protocols appropriate and is the work technically sound?
Yes

Are sufficient details of methods and materials provided to allow replication by others?
Yes

Are the datasets clearly presented in a useable and accessible format?
Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: My areas of research are medicinal plant uses, pharmacognosy, ethnobotany, ethnomedicine, analysis of chemical composition of plant material and biological activity analysis in vitro and ex vivo.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.