



Slowing Down with Stinging Nettle

Veera Kinnunen^{ID}, *Françoise Martz*^{ID}, and *Outi Rantala*^{ID}

Staying proximate with:	Mundane yet obscure things, such as weeds.
Methodological approach:	Slowing down with, gathering around together, making a shared conceptual ground.
Main concepts:	Transdisciplinary methods, human–nettle relations, plant-centric approach.
Tips for future research:	Ask for help from human and non-human mentors when trapped in epistemic monocultures.

V. Kinnunen (✉)
Archaeology and Cultural Anthropology, Faculty of Humanities, University of Oulu, Oulu, Finland
e-mail: veera.kinnunen@oulu.fi

F. Martz
Natural Resources Institute Finland, Rovaniemi, Finland
e-mail: francoise.martz@luke.fi

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We are scholars with a cause.

Our work is motivated by an aspiration to develop new, more sustainable ways of living in this world that is currently threatened by human actions. More specifically, our mission is to carve out possibilities for future flourishing in Finnish Lapland, where we live and do our research.

We approach this mission of ours from three rather different angles. Veera is involved in using more-than-human sociology for ‘making liveable futures’ by, for instance, promoting more caring relations with waste. Françoise is a plant biologist with expertise on plants as natural resources and their responses to biotic and abiotic stresses. Outi focuses on environmentally sensitive tourism in the Arctic.

We have been drawn together by our mutual interest in developing modes of scholarly inquiry that cross disciplinary epistemic divides. There is a widely shared consensus that bold multi-disciplinary research is needed to address environmental and health-related concerns of the Anthropocene, such as mono-crop plantations, zoonotic diseases, pollution, and toxicity. A growing number of environmentally oriented social science and humanist scholars are building alliances with natural sciences to develop transdisciplinary methods for engaging with non-humans (Nustad and Swanson 2021, 5) and for coming up with alternative futures. Natural scientific methods, such as naming, mapping, and counting, are increasingly taken as tools for ‘open and careful curiosity,’ producing new avenues for modes of being together rather than tools for fixity and control (Nustad and Swanson 2021, 5). We, too, have been involved in several multi-disciplinary projects, working side by side with, for instance, artists, ecologists, architects, and designers; however, we have also experienced the difficulties and deep-seated epistemic fissures between these disciplines (e.g., Nustad and Swanson 2021).

These fissures need not be taken as reasons to give up collaboration. Quite the contrary—as Anna Lowenhaupt Tsing, Andrew S. Mathews, and Nils Bubandt (2019, 186) put it, diverse disciplinary conceptualisations should indeed ‘rub up against each other in learning about the Anthropocene’—and in striving for a liveable future. Working from the idea of rubbing up against each other, our aim is not to develop a unified,

O. Rantala

Faculty of Social Sciences, University of Lapland, Rovaniemi, Finland

e-mail: outi.rantala@ulapland.fi

univocal approach but rather to build a shared-enough conceptual ground for transdisciplinary collaboration. As Kristina Lyons notes, following Kim TallBear (2014), such shared conceptual ground is created by articulating overlapping conceptual and ethical projects whilst acknowledging respected situated positions, understandings, and differences (2020, 17).

Therefore, we search for shared conceptual ground for productive collaboration by letting our concepts rub up against each other. With this aim in mind, we bring our different knowledge systems, methods, and forms of inquiry with us and gather around a common concern: *stinging nettle*.

GATHERING AROUND STINGING NETTLE

Stinging nettle is a plant that grows wild throughout the temperate parts of the world. The intertwined history of nettle and humans can be traced back to prehistoric times. Preferring moist, nitrogen- and phosphate-rich soil, it thrives well in the backyards of human habitation. Being easily available, it has been utilised for food, magic, medicine, animal feed, agriculture, and textiles. It is the only indigenous fibre plant in Finland, and it was likely used as a common cloth fibre until the Iron Age (Harwood and Edom 2012; Kirjavainen 2007). Despite its contemporary reputation as a weed, common nettle is currently experiencing a revival as a beneficial crop. It has become valued as a central ingredient in superfood mixes and amongst foodie cultures celebrating local ingredients and wild plants. Moreover, there is a growing commercial and research interest in employing nettle to develop more sustainable economies in areas such as the fibre industry and farming.

Stinging nettle is not an arbitrary choice for this methodological experiment. First, there are currently heightened economic expectations of stinging nettle in the north. Françoise has been occupied with nettle research for half a decade, which is one of the reasons why we have invited her to participate in this experiment. Outi and Veera have not explored nettle prior to this experiment. Second, we are intrigued by the nettle's ambiguous reputation as a nuisance as well as a saviour. Nettle seems to host these kinds of controversies: depending on the situation, it is either a weed or a crop plant, toxic or healthy, indigenous or invasive.

In light of the central (yet often overlooked) role of the nettle in the cultural as well as economic landscape of the north, the nettle–human

nexus is a good place to tease out diverse possibilities for future flourishing in the Arctic in times of uncertainty.

What follows is a thick description of our attempt to ‘slow down with nettle,’ which turned into a laborious process of searching for a common ground from where—and with whom—to discuss nettle–human relations.

INTRODUCING THE CONCEPTS

As it is winter when we begin our conversation, we cannot physically gather around a living plant in its habitat, even if we would like to. Instead of becoming physically proximate with the plant itself, we decide to seek proximity by meeting in a café and discussing our shared subject of interest together. We have agreed to approach nettle by suggesting concepts or approaches that would enable us to comprehend nettle–human relations in the north. Each of us has prepared for the meeting by choosing a concept or an approach from her own research field that she anticipates would be useful for our collaboration. Here is what we have come up with:

Françoise: Stinging nettle (*Urtica dioica*) is a perennial herbaceous plant that grows 1–2m high in dappled-shaded spots from dense and widespread rhizomes in moist soils, meadows, and abandoned fields (Grauso et al. 2020). Despite its humble looks, nettle is an exceptionally versatile plant. Although aspects of the growing environment—such as soil fertility, moisture, and light—shape the phenotypical characteristics of any plant, nettle’s characteristics are exceptionally plastic. For example, 20 different nettle provenances of the Grand Est area of France were found to be genetically identical (C. Viotti, pers. comm.). In our own studies, nettle samples with Rovaniemi origin developed different phenotypes when grown in France or Italy. In southern locations, they became stunted, whereas in Italy they developed higher hair density.

Although nettle products have high market potential, its industrial cultivation is currently underdeveloped: less than ten hectares are presently cultivated in Finland, shared between three main producers. Moreover, there are several obstacles restricting the development of large-scale industrial production. First, some may say that nettle is not easily tamed; it grows everywhere, but not where we want. Germination is relatively slow and dependent on light, and because seeds must be sown on the soil’s surface, they are easily blown away or eaten by birds before they germinate. Second, and more importantly, harvesting methods for

industrial-scale cultivation are non-existent. However, if technical problems related to cultivation, harvesting, and processing methods are solved, stinging nettle has great potential for farming and commercial production and thus for increasing the income of rural communities (Virgilio et al. 2015, 48).

Veera: You mention that nettle has great potential for increasing the income of rural communities. I see that this potential for supporting the local economy is in line with the post-capitalist scholarly debate on *diverse economies*. Stemming from discussions in the field of feminist political economy (Gibson-Graham 2006; Gibson-Graham 2020), the diverse economies approach seeks to cultivate new ways of thinking about economies and politics. This field of research challenges the dominant understanding of economy as a market-driven system based on monetary exchange and argues that this one-sided notion belies a range of economic activities striving for the sustenance of communities (Gibson-Graham and Dombrowski 2020, 1), such as borrowing, caring, growing, gathering, or poaching.

Adopting a diverse economies approach to investigating nettle–human relations would enable us to highlight the diversity of economic practices that make up our shared world and to explore the various processes and interrelations through which humans and nettle co-constitute livelihoods (see Gibson-Graham and Miller 2015). Therefore, viewing nettle–human relations from a diverse economies vantage point allows for the conceptualisation of nettle as a *participant* with which human wellbeing has historically co-evolved rather than a *resource* to be exploited in economic processes.

Outi: I agree that non-human agents need to be taken as components as integral as humans in our socio-ecological economies. I find inspiration in bioregional philosophy, which seeks to build more ethical and ecological ways of living on this planet by attending to specific places (Berg 2013). Bioregionalism has gained traction with the climate change crisis. In tourism studies, bioregionalism was brought up by Hollenhorst et al. in 2014 when they proposed bioregional tourism—which they call *locavism*—as an alternative to the oil-dependent tourism industry. Hollenhorst et al. link bioregionalism to other bottom-up behaviour changes, such as slow consumption and de-growth movements. I see nettle fitting perfectly here: it is not considered exciting in a conventional sense but is rather a ‘mundane plant’ that has the potential to evoke interest and curiosity. This potential relates to the local food movement, home-grown

solutions, and development that considers the ecological prospects and limits of the regions (see also Hollenhorst et al. 2014, 315–16; Lockyer and Veteto 2013).

THREE MONOLOGUES DO NOT MAKE A CONVERSATION

If you were expecting easy revelations and epiphanies from sharing our thoughts about nettle, you will be disappointed. Indeed, *we* were disappointed.

In our first meeting at the café, there was a lot of talk about nettle, but at times we felt like we were talking past each other. It was not easy to cross the disciplinary divides, despite mutual good intentions. Social scientific concepts were cryptic to Françoise, and Outi and Veera were not certain what they would do with the biological facts about the plant's physiology. Our first discussion resembled three parallel monologues rather than an actual conversation.

Nevertheless, it was a good start. When scrutinising these three monologues carefully, we can see that there are many overlaps, but also a whole lot of rubbing going on. First, we all emphasise the local and situated character of nettle relations. Françoise points out that nettle's characteristics vary exceptionally depending on the growing conditions. This observation resonates with Veera and Outi's more philosophical ideas about nettle's potential as part of place-based economies. Second, and in relation to the latter, we all frame nettle-relations with economy, although our definitions of economy differ. Whilst Françoise's research has focused on nettle's suitability for large-scale industrial production and productivity, Veera and Outi's take on economy celebrates informal relations and small-scale local production, characterising economy as a provider of more-than-human wellbeing.

Looking back, we realise that despite our different concepts and approaches, we are all intrigued by questioning *how one can make a living with nettle in the north*. Thus, our conceptual common ground can be located within the triangle of the nettle, the place, and the economy. We agree that it is time to leave the comfort of our field-specific epistemologies and meet in the common ground, in the triangle of the nettle, the place, and the economy.

The problem is: how?

MEET THE PLANT MENTORS

Françoise points out that, in her field, it is common to hire a professional facilitator for multi-disciplinary projects to act as a mediator who can translate conceptual differences and prevents misunderstandings. We also want such a mediator! Françoise has a brilliant idea. She suggests that we could invite people who work with nettle into our conversation and share their experiences with us. Through her research projects, Françoise has a vast network of people working with nettle in the region.

Taking the lead of Oberndorfer et al. (2017, 464), we approach nettle professionals as *plant mentors* who are knowledgeable about utilising nettle in active practice and can thus teach us about the practicalities of living with nettle. Leaving our theoretical models behind, we meet our mentors with curiosity by posing an open—and deeply situated—question: How does one make a living with nettle?

Our first plant mentor, whom we call the *entrepreneur*, is an executive of an internationally successful local company that uses wild and cultivated Arctic plants in their superfood products. Although the company is relatively new, the entrepreneur comes from a lineage of herbal healers, so she has a life-long relation with nettle along with other Arctic wild herbs.

Our second plant mentor, whom we call the *project coordinator*, works in a youth organisation that arranges activities around foraging wild herbs, including nettle. The project coordinator has participated in a number of endeavours concerning the economic and cultural revival of wild plants in the Arctic region.

Our hope is that learning about the practicalities of making a living with nettle in Finnish Lapland will enable us to make sense of place-based nettle–human economies and thus work slowly towards a transdisciplinary mode of knowing together. The next section revolves around the thematic insights that emerged from listening to and engaging with the stories of our plant mentors.

STORIES FROM THE NETTLE FIELD

Listening to vivid stories centring around nettle, it soon becomes obvious that nettle–human relations are thick with *meaning*. More specifically, the cultural imaginaries surrounding stinging nettle are filled with controversies. On the one hand, nettle is highly valued for its healing powers; on the other, its emergence in a backyard is regarded as a sign of neglect

and decay. The name of the plant carries these tensions in its meaning. There are over twenty different names for nettle in ancient Finnish, and they often evoke a double meaning of burning and 'hostility.' Likewise, in English, 'to nettle' means to irritate or provoke.

Our plant mentors insist that nettle is one of the most powerful yet most neglected plants in the world. When we ask the project coordinator what she teaches about nettle in her foraging courses, her answer is simply, 'Nettle is the best.' It is good for 'strengthening weak blood' and 'wonderful for hair and nails,' as she puts it. Indeed, rich in many vitamins and minerals, nettle has been valued as being amongst some of the most nutritious plants on the planet, according to the entrepreneur. Due to its highly nutritious composition, commercial and scientific interest in nettle has recently increased; even so, to date it is still used surprisingly little. The traditional use of nettle in cooking has continued to the present day in a Finnish spring delicacy, in which the fresh leaves of baby nettles are used to season pancakes. For many Finns, the taste of nettle pancakes takes one directly back to embodied memories of childhood. People have a basic know-how for identifying nettle (easy: it is the one that stings!) and utilising its leaves in cooking (blanch, chop, use). Both of our mentors had learned the habit of collecting and drying nettle leaves for winter from their childhood homes.

Despite its superb qualities, such as its proven health effects and promising commercial possibilities, nettle's reputation as an unwelcome weed sticks fast. As nettle flourishes in the wastelands of human habitation, such as ditches, dunghills, and abandoned areas, it is regarded as a 'junk plant.' Whilst there are heroic sagas about other powerful Arctic herbs, such as roseroot or angelica, it is hard to find such tales about nettle. Thus, for those who wish to make a living developing nettle products, one of the challenges is to get rid of its waste-related stigma. The entrepreneur half-joked that she always used to say that her mission is to turn the nettle from the champion of the dunghill to the king of the culinary world!

Much to the entrepreneur's surprise, nettle-based health products have been easier to market to both domestic and international audiences than products based on distinctively Arctic herbs. Despite nettle's dubious reputation, buyers do not need to be educated about its traditional uses and benefits. Moreover, the unique growing conditions of the 'Arctic nettle' give it a special appeal over the common backyard weed. The imaginary of the 'pure' Arctic environment is important, as the nettle is also

known for its ability to absorb toxins from the soil—a desirable quality in phytoremediation (Viktorova et al. 2017), not in food crops.

However, urban residents are seeking to reconnect with nature more and more, and not only through buying superfoods in nicely labelled jars. In Finland, foraging wild herbs has become a popular way to connect with nature, even in urban areas. The project coordinator's youth association has been organising popular guided tours for collecting wild herbs for over a decade, and the entrepreneur's Arctic superfood company has recently been developing tourism activities around wild herbs at their farm. The entrepreneur predicts that this emerging side business will take a leap forward in the near future.

The wish to engage with wild plants in one's own surroundings takes us closer to the tangible *materiality* of the nettle. When we listen to our plant mentors talking about their livelihood, we pay attention to the multitude of technologies and infrastructures, as well as material skills, that are necessary when scaling up nettle products from individual use to commercial purposes, be it foraging wild nettle or cultivating and processing various nettle products.

Over the years, the youth association has invested in the advanced infrastructure needed for processing large amounts of wild herbs: 'We bought a chipper to produce shred from the nettle. We had large freezers and everything. We had truly awesome processing facilities! An awesome drop dryer for drying large masses and whatnot.' Unfortunately, the organisation eventually had to give up their spacious facilities; they could not maintain the infrastructure, as they no longer had enough space to store their machines and products. The lack of space and technology led to the fading of the foraging practice and, eventually, the cessation of working with wild herbs altogether.

Likewise, the long-term investments of the superfood company include obtaining suitable technologies, building human networks and supply chains, and developing new methods for processing materials. For the new contract farmer, starting to grow nettle has required adopting an entirely new skill, developing novel methods, and inventing equipment from scratch. The entrepreneur notes that although there have been bits and pieces of information and know-how scattered here and there, they have had to do a vast amount of research to find out how to develop suitable technology for harvesting and to scale up the process and make it profitable.

Although these technologies and infrastructures are significant, making a living with nettle also requires harnessing material relations that are more subtle, such as developing new embodied and pre-reflexive skills. Developing the new skill of working with nettle demands the absorption of practical knowledge: for instance, learning to tell when the flowers are ripe for harvest, how long the harvested nettle stays fresh in hot sunlight, what moment is right for harvest, what kind of habitat it thrives in, or where it is safe to collect the young plants. Some of these questions can be answered precisely—by taking samples and conducting tests, for example—but one also learns these things in time by cultivating a certain feel for the material.

It soon becomes clear that relating to the materiality of the nettle is necessary for understanding the variety of *temporal orientations* that need to be considered when making a living with nettle. First, one must adapt their economic activities to the cyclical seasonality of the plant's growth, which has resulted in the project coordinator's summer holidays taking place during the winter months for years. The busy season for foraging wild nettle is the early summer, when the leaves are young and fresh, but if the leaves are collected frequently, a nettle bush can produce new leaves throughout the summer. Setting up a crop may take up to three years, but once established it can produce good yields for even a decade. One field can produce three crops in one summer if harvested often. The collected leaves (and sometimes the seeds and roots) are either dried or frozen to be used in nettle products throughout the year.

These seasonal temporalities rely on the careful timing of actions in anticipation of the future. However, nettle–human relations are also shaped by deeper and less urgent temporal orientations. For instance, the Arctic superfood company's temporal orientation reaches back generations in its founder's matrilineal family history, as the entrepreneur comes from a long line of natural healers. Both the traditional know-how of herbal healing and existing herb fields were passed down from the entrepreneur's mother, who used to run a family business based on Arctic herbs. The already flourishing herb fields were a great asset for a new company, as herbs often demand several years of cultivation before their first harvest. On the other hand, the company ended up developing nettle-based products because wild nettles were easy to collect. In the beginning, the demand for nettles was met by gathering wild plants through existing networks, such as family and friends. However, developing local nettle cultivation was a vital step towards ensuring

steady production and quality. Today, a contract farmer produces three harvests per summer, an amount that satisfies the current needs of the company. Being herself born and raised in a small Finnish village, the entrepreneur holds herself responsible not only for the future flourishing of her company but also the wellbeing of the inhabitants of the region.

The far-reaching temporal orientation of the entrepreneur is in stark contrast with the twitching temporalities of the project coordinator's world, in which the seasonality of human–plant relations collides with the logistics of the project economy, which is dependent on short-term funding and the production of novel project ideas. On the one hand, project funding has allowed for improvisation and experiments; the project coordinator has, for instance, organised wild herb walks and taught wild herb knowledge to school children in home economics classes. On the other hand, these experiments and even well-functioning practices tend to fade out when the funding ends and the people involved are compelled to look for other work. Even large investments, such as herb processing equipment, have had to be divested due to lack of space and funding. The short-lived temporality restricting long-term future visions may raise frustration and even bitterness in people who have invested time and emotion in developing the necessary skills, equipment, and methods.

STANDING ON A SHARED CONCEPTUAL GROUND

The stories of our plant mentors revolve around three entangled aspects, each shaping how enplaced nettle economies come into being: meanings, materialities, and temporalities. In their general openness, these aspects provide a shared conceptual ground for us to stand on and spark our transdisciplinary imagination.

However, we agree that the shared ground is not something that was 'out there' for us to find; rather, it is something that we carefully established by letting our concepts rub up against each other and then leaving them behind, as well as by inviting mediating interlocutors into our conversation. As Marr et al. (2022, 556) point out, *to share* means both to hold in common and to be divided. In our attempt to hold up a shared conceptual ground, we are constantly negotiating between an urge to establish a common vocabulary and the need to acknowledge and respect epistemic differences.

As establishing a shared conceptual ground for transdisciplinary conversation is time-consuming and laborious, even ‘risky, exposing, and uneven’ (Marr et al. 2022, 556), there is little point in doing it just for its own sake. Therefore, we end this experiment by reflecting on how our collaborative effort of knowing together might enrich our future inquiries.

Françoise comments that although she, as a plant biologist, would not have come up with these themes with her own scientific tools, she finds them fruitful for thinking about nettle-based solutions. They enable her to analyse and communicate the conditions for and barriers to establishing nettle-based economic solutions. Indeed, they open up the means to understanding the complex webs of connection between humans and plants, particularly how they may enable certain practices whilst restricting others. For instance, if local farmers have been brought up fearing nettle’s invasive behaviour and have been taught to eliminate them with herbicides, beginning to cultivate nettle might not be an attractive or even viable idea, despite recent studies promoting it as a multi-purpose, low maintenance (low input) crop (Sadik 2019). Taking seriously the thick meanings attached to human–plant relations enables communicating the possibility that developing efficient, technoscientific solutions for agriculture may not be enough if there are cultural barriers preventing the adoption of certain species into cultivation.

For their part, Veera and Outi point out that these conversations have provided revelations about the nettle and its material qualities. They are intrigued by nettle’s untamed unpredictability, how there is no such thing as a general nettle—it adapts to its environment, always becoming different. They are beginning to see how biological tools might open avenues for ‘plant-centric’ approaches. As they see it, a plant-centric approach would enable including the nettle in the analysis and highlighting the fact that its economic utilisation, whether the nettle is wild or cultivated, is dependent on the specific qualities of its habitat and the presence of suitable space for handling materials and adopting—often even inventing—a range of expensive equipment and technologies, as well as the time-consuming development of skills and feel for the material. Plant-centric inquiry into nettle economies would steer attention towards diverse forms of interdependencies, complex relations of community-making, and ethical negotiations of multiple rationalities and ways-of-living. In other words, plant-centrism would be what Veera meant

by insisting that nettle should be taken as a ‘participant’ in economic relations.

Moreover, turning attention to the nettle allows for the provocative suggestion of inviting the nettle itself as a *plant mentor* into the conversation. Would biological methods provide tools for ‘listening’ to the nettle by, for instance, attending to its means of responding to different environments? What kinds of questions could we ask, and what could we learn from the nettle? For instance, if the modern logic of cultivation has been based on mono-crop plantations and minimal genetic variation, might maintaining liveability in the Anthropocene require embracing nettle-like variability and ‘untamability’ as an opportunity for higher resilience in the face of unpredictable future conditions?

Finally, the friction amongst multiple temporalities is all too familiar to the researchers involved in the nettle study. Working with nettle demands time and patience: nettle fields begin to produce a good harvest after three years, and since the typical research funding period is also three years, the accumulated data is always incomplete by the end of the funding period. These colliding temporalities form barriers to committed research that provides long-term data to support, for instance, the development of large-scale nettle cultivation or experiments on nettle’s potential for regenerative farming or phytoremediation. Here we are again reminded how materially stubborn nettle is, not easily ‘tamed’ and turned into a resource. Indeed, we learn that the complex symbolic, material, and temporal characteristics of nettle relations do not facilitate quick value production, whether in the form of profit or research results. We are once again reminded to slow down with nettle.

The entrepreneur’s example illustrates how a long-term commitment to seasonal and generational temporalities can lead to investment not only in the future of a company but also in the wellbeing of the human and non-human inhabitants of a region. Outi points out that the entrepreneur’s life-long commitment to a particular place and her rootedness in the land is in line with bioregional philosophy. In bioregional thought, people are challenged to become ‘re-inhabitory’: even occasional visitors are encouraged to learn to live and think ‘as if’ they were engaged with the place for the long future, as a bioregional poet-philosopher Gary Snyder puts it (1995, 246–7). Thus, at the core of bioregional activities lies the pursuit of building more ethical and ecological ways of living on this planet. Despite its idealistic undertones, bioregional thought resonates with the more recent discussion about the need for critical yet

hopeful transdisciplinary research that could contribute to the current era of anthropogenic damage. Despite the fact that the Anthropocene is planetary in scale, its causes are produced in specific places, and its harm spreads differently in different localities. Everything that happens in site-specific situations has also a planetary difference (Tsing et al. 2019).

Nettle's contradictory ability to provoke and sting as well as to bind together—after all, nettle is the oldest fibre used in making yarn nets—sits well with the tensions and 'rubs' that are implicated in transdisciplinary research collaborations (see e.g., Ogden 2021, 117). Gathering around stinging nettle captures our method of staying with the trouble (Haraway 2016): whilst transdisciplinary collaboration may be irritating at times, it is also epistemologically rewarding, as it helps to provoke curiosity and wonder. Hopefully our modest experiment in creating a shared conceptual ground has paved the way for our future collaboration seeking to improve conditions of liveability—rather than mere profitability—by carefully attending to localised plant–human economies.

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