

BiPoN: Master projects (2021)

1. Defining what constitutes "wild" plants in the context of human nutrition

Master project 1.1

Neophytes in Nature Reserves – Unwanted Invaders or the New Wild?

This master project focuses on decision-making by nature conservation professionals concerning the management of feral crops in German nature reserves. In more nature reserves, attempts are being made to re-establish a "new wilderness" (*Prozessschutz* or *Natur Natur sein lassen*). However, neophytes and neozoa are increasingly invading such areas, in some cases replacing native species. This poses a fundamental dilemma for modern approaches to nature conservation. Thus, this topic addresses an increasingly important aspect of nature conservation with the ongoing globalization of non-native species distribution and emerging consequences of climate change. Methodologically, the project will be based primarily on expert interviews with nature conservation managers in North Rhine-Westphalia. The project will be carried out in collaboration with local biological stations in North Rhine-Westphalia. Lead partner: Biologische Station Haus Bürgel, Stadt Düsseldorf & Kreis Mettmann.

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Master project 1.2

Between plantation and *Urwald*: Tree domestication going wild

The polarized domesticated-wild dichotomy has also dominated the treatment of trees by humans who either included trees in an expansionist/conquest mode of "full" domestication, for instance in plantations and age group forests (*Altersklassenwald*), or see "undisturbed" forest cover (*Urwälder von morgen*) as the target form of wilderness. There is a lot of debate between those who favour "bread trees" (trees with short term economic gains) and those who consider trees as off-limits to domestication and want to end human intervention in the long term (with the exception of extracting, largely imported, "problem trees"). However, there is also growing resistance against this deeply engrained bifurcated view, in particular at forest research centers (*Forstliche Versuchsanstalten*). Here advocates of "light forests" propagate a moderately managed permanent mixed forest (*Dauermischwald*) that includes chosen trees (*Zukunftsbäume*), introduced trees (to accommodate for climate change) and selective logging but which also allows for extensive self-sowing and for epigenetic improvement of trees as they adapt over generations.

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Master project 1.3

Wild or Standardized? The Role of Standards, Norms, and Regulations for Wild Crop Production

This study draws on perspectives in institutional economics to analyze wild plant production and sale in South Africa. The idea is to analyze the regulatory framework (with a particular focus on private and public process standard), as well as the marketing strategies and market organisation of wild crop production in the Cape region in South Africa. Here the project aims to outline challenges and potentials for producers within a

wider regional and value chain context. (in collaboration with University of the Western Cape, Prof. D. Tevera et al.).

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2. Defining, establishing, and crossing conceptual and physical boundaries

Master project 2.1

From wild to cultivated: Genetic diversity in local landraces and export varieties of grain amaranth in India

So-called orphan crops have numerous health and environmental benefits. Their integration into food systems can diversify and improve the nutritional quality of human diets. Because orphan crops have received less attention by breeders, they are often genetically more diverse than major crops. One such orphan crop is grain amaranth. The largest producer and exporter of grain amaranth is India, where landraces for local consumption and varieties for export are grown. In this project we will compare the genetic diversity of local amaranth landraces and export varieties to understand if the improvement of the crop leads to a loss of diversity.

The project will be performed in collaboration with our partner Dr. Dinesh Joshi from ICAR-Vivekananda Parvatiya Krishi Anusandhan Sansthan, Almora, India.

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3. Identifying potentials, challenges, and conflicts in tackling food and nutrition security

Master project 3.1

Seed Exchange Platforms going digital: Offline/Online Role of Local Seed Exchange Platforms for Species Conservation and Community Food Sovereignty

Local seed exchange platforms are booming in Germany. In the current COVID-19 situation, large events for seed exchange are not possible and seed exchange communities have gone digital. The project focuses on the offline/online role of local seed exchange platforms for species conservation and community food sovereignty. What role do offline/online seed exchange platforms play? Which kind of seeds are exchanged and why these? How are offline/online seed exchange platforms organized? What has changed in the context of COVID-19?

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Master project 3.2

Drinking Wild – Gin and its Botanicals

Gin has enjoyed growing popularity in recent years, as the number of sales and brands increase, with a clear trend toward regionalized production and niche branding. Some

distilleries emphasize use of wild ingredients - botanicals and juniper - to make their products unique in the market (e.g. Müriz Gin, Moorgin, or Glendalough). How do producers involved define, harvest, process, and communicate wilderness? What strategies do they employ to differentiate their brands from producers that use cultivated ingredients?

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Master project 3.3

Hunger for the wild

Wild herbs, wild vegetables and wild salads are increasingly conquering the menus of restaurants and hobby chefs. How are these "wild" ingredients produced, distributed and marketed? What distinguishes wild ingredients from others, in terms of taste and (re)presentation? Who consumes "wild" and with what aim? The project deals with the culinary representation of wilderness and the related (artisanal) practice of producing "wild" food.

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Master project 3.4

Palm Oil and Tensions between Global and Local Food Security

Palm oil is the most consumed oil in the world and global demand for this cheap, efficient and versatile oil continues to grow. The increasing production of palm oil is amongst others promoted as important to feed a growing world population. However, large-scale palm oil monocultures destroy forests, forest gardens and local wildlife in the areas where it is grown – mainly in Malaysia and Indonesia. This study examines how the conversion of forests into large-scale oil palm plantations affects food security (including availability of, access to, and self-sufficiency with food) and nutrition of local communities.

Carried out in collaboration with Dr Pujo Semedi Hargo Yuwono and Dr Pande Made Kutanegara, Universitas Gadjah Mada, Indonesia

Setting: this study can be conducted as desk research, bringing together and analysing the existing literature or alternatively as a field research in Indonesia. The desk study would generate a broader picture covering Indonesia, Malaysia and the Philippines, while the field study would rather look into one (or a number of selected) communities in Indonesia.

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