

Wild Food Accreditation Scheme

Scoping Report

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This report was commissioned and funded by the Association of Foragers and NatureScot.

The Association of Foragers is an international professional foragers association, promoting sustainable ecological stewardship through teaching and harvesting wild plants, seaweeds and fungi for use as food, drink and medicine. Most members are based in the UK.

<https://foragers-association.org/about-us>

NatureScot is the new name of what was Scottish Natural Heritage - a public body seeking balance in the sensitive management of our natural world in order to maintain and enhance biodiversity in Scotland. <https://www.nature.scot/about-naturescot>

These and other agencies that have contributed to this report are discussed at length in Chapter 2.

Arising from the remit and geographical focus of these organisations, this report is intended to scope possibilities and further discussion around a Wild Food Accreditation Scheme (WFAS), including how that might operate in relation to political and organisational boundaries **within the UK**. More specifically, its intentions are to:

- Explore the scope and context of foraging activities and wild food use
- Identify opportunities and challenges related to foraging and wild food
- Outline the policy environment around foraging and wild food use
- Evaluate potential benefits and challenges of a WFAS
- Outline potential models and structures for a WFAS
- Write sample tests for a WFAS
- Undertake and report on preliminary outreach to potential stakeholders
- Identify key opportunities, challenges, areas of research and development priorities
- Serve as a basis for future discussion and development work among stakeholders

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Note on terminology:

For the purposes of this report, the term "wild food" is used to refer to edible parts of plants, fungi and marine algae **but not** game, fish or shellfish. Game, fish and shellfish are not within the scope of this report.

Note on Sharing of this Report:

This report is not intended to be a statement of policy or blueprint, but as a starting point for future discussion between stakeholders. In this respect the authors request that, at this early stage, you do not share it on broad public forums such as Facebook. Please do though feel free to share it with **individuals** who work in fields relevant to foraging, conservation, food safety, nature connection, rural enterprise and public health.

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Executive Summary

Background

Foraging for wild foods in the UK is becoming increasingly popular, presenting a wide range of opportunities in the areas of rural enterprise, reconnection with nature, food tourism, resilient food systems, and enhancing physical and mental wellbeing. These are all areas of interest to governments across the UK and are key elements of the post-COVID-19 pandemic green recovery. Foraging also brings challenges and tensions with other interest groups, especially around conservation, food standards, and access to land. A lack of consensus on benchmarking and scientific guidance for the sustainable harvesting and safe usage of wild foods is an obstacle to hobby foragers, wild food focussed businesses, and more general nature connection. In response, The Association of Foragers, with match-funding by NatureScot, commissioned this scoping research to address the need for consistent messaging around foraging, and engagement with the emergent wild food sector.

Stakeholder Engagement and Case Studies

Stakeholder engagement was undertaken and attracted varying levels of interest from different sectors across the nations of the UK. Stakeholders approached included government departments and agencies, third sector organisations, businesses using wild food, academic researchers, and medical professionals involved in nature-therapy, as documented in Section 6 of this report. There was positive feedback on the concept from many of these groups, but identifying and consulting with appropriate individuals and agencies, especially those working around public policy, is a priority going forward. Four case studies are reported of businesses which may benefit from an accreditation scheme and these demonstrate the range and vitality that the wild food sector can attain.

Development of Accreditation Scheme

Scoping work on the structure of a potential accreditation scheme resulted in a proposed voluntary, species-specific, three-level accreditation structure developed and overseen by a stakeholder group. A preliminary assessment of digital technology solutions that would fit the requirements for online and data management aspects of the scheme was undertaken. Foraging teachers from the Association of Foragers developed sample content for online learning and assessment, to act as a starting point for discussion with other stakeholders, and to identify key challenges.

Recommendations

This report concludes that the development of a Wild Food Accreditation Scheme would increase awareness of wild food amongst the population and benefit hobby foragers and those working within the wild food sector. An effective scheme would meet a clear need for education, consistent messaging and professionalisation of this area, contributing to multiple, beneficial outcomes for the rural economies and public health. A scheme should build on and bring together a significant body of previous work in this area.

It is recommended that a steering group should be formed to oversee development work and take advantage of the opportunity to apply for Green Recovery funding. The group should comprise organisations across the multiple sectors, in particular foraging teachers and businesses; conservation and landowning interests; and food safety and health agencies. The challenge of finding a host organisation to administer the scheme should be recognised as resulting from the innovative nature of the work but should not be a reason to postpone or halt development.

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Context

1.1 Foraging on the Rise

For the purposes of this report, the term “wild food” refers to edible parts of plants, fungi, and marine algae but not game, fish or shellfish. Game, fish, and shellfish are not within the scope of this report.

The use of wild species as food in the UK has lagged some way behind most of its European neighbours. Only 8% of UK households reported using any of 45 of the most common wild harvests, compared to a European average of 25% of households ([Vidale et al., 2015](#))

From this low base, the consumption of wild foods is becoming increasingly popular in the UK on many levels. Individuals are turning to foraging to find wild plants, fungi, and seaweed as sources of healthy local seasonal food, with the added benefits of improved physical wellbeing and mental health, through nature connection. Businesses such as restaurants, food suppliers, distillers, and producers are increasingly using wild ingredients and promoting this practice.

This has not happened out of the blue: there have been great champions, including Richard Mabey's seminal book, *Food For Free* (never out of print since 1972), Roger Phillips' ground-breaking identification guides, *The Star Tree Project* and *The Scottish Wild Harvest Association*; *River Cottage*; Miles Irving's *Forager Handbook*; and a growing recognition of the delights and potential of foraging-led cuisine [championed by high-end chefs](#) around the world (Williams 2017).

'The Ethnobiology of Contemporary British Foragers: Foods They Teach, Their Sources of Inspiration and Impact', ([Luczaj et al, 2021](#)) charts the rise of foraging in the UK in more detail, noting that there has also been a 'trickle-up' effect from foragers for whom food from the wild is neither new nor trendy, but a day-to-day reality. Their knowledge has nourished a resurgent foraging culture. A blossoming of wild food guidebooks, blogs, and social media accounts, especially in the last 5 years, has fuelled a new wave of adventurous foragers, chefs, and food producers who have started to nibble at the boundaries of what has historically been considered 'edible'.

1.2 Benefits from increased interest in foraging

As many wild species being sought by foragers are abundant and some even considered invasive - often classed as “weeds” or “by-catch” by other land users - this presents a wide range of opportunities, especially in the areas of rural enterprise, nature/science/food tourism, resilient food systems, and physical/mental wellbeing. Equally, a number of species are considered vulnerable to foraging and there is caution about promoting their harvest to a wider audience.

The nutritional density of many species that are foraged (nettles, dandelions, wild garlic to name a few), and the biodiverse eating that foraging promotes, means that wild food have the potential to bring significant health benefits, especially for urban communities with financial challenges and limited access to fresh food ([Dabady & Stark, 2017](#))

The coronavirus pandemic further contributed to the rise of interest in foraging, as people's geographic boundaries shrank, their connection to their locale increased, often being expressed through foraging. At this time wild food teachers, already generous sharers of information, provided still more (usually free) online education, framing wild food as “an alternative local food system with potential for increasing the resilience of local communities in times of uncertainty”. ([Townsend, 2020](#)).

At the same time, a major investigation of the non-timber forest product sector reports that “despite the increasing interest in certain aspects of wild products, the more general trend is that detailed local knowledge continues to be eroded” ([Star Tree Project, Wolfslehner et al, 2019](#)).

Foraging as Embodied Cultural Practice

The intimacy with wild plants, fungi and seaweed embodied by foraging can promote a sense of place, belonging, community and shared cuisine among cultural groups.

[McLain et al. 2014](#) conclude that foraging is a practice that “appear[s] to be important for maintaining cultural identities and has the potential to contribute to food security and human and community well-being...”

NatureScot has explored some of the connections between wild food and the Gaelic language. After an initial meeting of Gaelic-speakers and educators, the term ‘*rurachd*’ was identified as the closest Gaelic word to reflect foraging. Since then, a series of Gaelic language foraging events have been held, and written guides and recipe cards for all ages have been produced. ([Scotland’s Natural Larder 2018](#))

1.3 Challenges arising from increased interest in foraging

Safe Identification and use by Individuals and Businesses

Increased foraging brings increased risks of the misidentification of poisonous species (e.g. mistaking hemlock for cow parsley) and from inappropriate usage of species with particular dosage thresholds or interactions (e.g. sorrel, tansy, meadowsweet). The consumption of misidentified fungi has resulted in well publicised incidents, causing serious health problems.

Many foragers start their learning on social media platforms.

As there are no gatekeepers for teaching and learning about wild foods, unsafe advice and practices are a risk.

Publicly documented examples of these include:

- Irreversible renal damage from accidental mushroom poisoning (<https://www.bmj.com/content/345/bmj.e5262>)
- [Death of a participant on a survival course](#) in France following consumption of hemlock water dropwort (*Oenanthe crocata*) (2020)
- Post-publication withdrawal by publisher of a book written by an Instagram influencer ‘[Tales from a Forager’s Kitchen](#)’, due to toxic recipes being included (2018)
- Publication of a recipe written by a celebrity chef including henbane (*Hyoscyamus niger*) [in Health and Organic Living Magazine](#) (2008)
- A published article directed readers to eat raw watercress (*Nasturtium officinale*) without warning of the risks of liver fluke

A lack of reliable data on safe dosage of some edible plants has been identified as a key barrier for small businesses, and may present a public safety issues, as in these examples, in which members of the Association of Foragers intervened:

- A plant considered likely to be carcinogenic and for which there are no reports of edibility was included in a commercially available distilled spirit
- A chef picked daffodils to serve in their restaurant thinking they were wild leeks

A wild food accreditation scheme focussed on positive identification of edible species, sound knowledge of potentially dangerous lookalikes, and the clearest possible information about safe dosage, could help to reduce such incidents.

As many “novel foods” do not have a long history of commercial use, many wild foods have no clear safe dosage data available. Further research into this should be prioritised and funded.

Legislation Relevant to Foraging

Some plants, fungi and seaweed species have legal protection under UK law.

Rights of access to land and to collect wild species varies between UK legislative areas, notably between Scotland and England. The Wildlife and Countryside Act (1981) provides protection for sensitive species and habitats, and restricts the collection and potential redistribution of non-native species.

In Scotland the right of responsible access is enshrined in the ground-breaking Land Reform Act of 2003 which gives the public the “right to roam”. In so doing they may collect fungi, seaweeds and the above-ground parts of plants for personal use. For commercial foraging, or to uproot a plant for any purpose, the landowners permission must be sought.

To most people with an interest in non-commercial foraging the legal status of gathering food from the wild is often confusing and intimidating.

Any WFAS should seek to achieve clarity around the legal status of individual species. As legalities are often particular to individual species - or even parts of individual species - a sensitive, granular, species-specific approach to education and accreditation seems like the best way to help people to act responsibly and within the law.

Foraging and Conservation

There is limited research on the impact of foraging on wild species within Britain and Ireland. Foraging for personal use has not been surveyed. Commercial foraging, where produce is gathered for sale to third parties, is most often a part-time or spare-time activity for ‘a bit of money on the side’, which makes the sector very hard to survey ([Chapman, 2017](#)).

It is possible that foraging may cause problems in some delicate ecosystems and with a handful of identifiable species, but credible scientific proof of such damage is rare ([Butler, 2016](#)).

This contributes to a situation in which data deficiency is interpreted in alternative ways—both supporting and undermining the case for foraging. However looking at the impact of foraging on a global scale there is a body of research that notes foraging for small scale and personal use is rarely the sole cause of species decline. Local situations may differ and foraging by multiple individuals at a site, may contribute to damage and potential limitation of the species. Wild harvesting has been

found to contribute to species decline in particular with medicinal species (health having a high emotive value), species with high value in international trade, and when other factors such as habitat loss and climate change create additional pressure on species.

The species of most interest to most foragers tend to be those that are abundant and hard to mistake for rare or toxic species. Information is widely available about these species, but the accuracy, consistency, relevancy and comprehensiveness of information can vary significantly between authors. Sound research and clear, consistent widely disperse messages around safe, legal, considerate harvesting practices will prevent accidents and insensitive foraging amongst those experimenting outside of traditional knowledge.

It is also acknowledged that local abundance does not necessarily reflect the national situation or the overall rarity / vulnerability of a species, and that diverse ecosystems often depend on the abundance of certain species.

The upsurge of interest in foraging has sometimes resulted in tensions between foragers and conservationists. Some recent examples include:

- [Bristol Council proposed a 'foraging ban'](#) in all its public parks - soon abandoned as unworkable
- [Forestry England proposes a mushroom picking 'ban' in the New Forest](#) - abandoned after being challenged by Association of Foragers
- Forager Ltd (a wild food supply company) served with a Stop Notice by Nature England to desist harvesting sea kale from Dungeness.
- [London City prosecute and fine foragers for breaking foraging by-laws](#)
- One of Britain's rarest endemic plants was included in a proposed distilled spirit (until an Association of Foragers member intervened)

Although headlines can make it look like a war is being fought, these examples stand out because they are *exceptions to normal societal attitudes* that see foraging as a benign, low-impact activity. Many foragers have pointed out that gathering abundant, local wild species as food has considerably lower ecological impact than most other food sources provided it is practiced with care and attention. ([Irving, 2015](#)).

Despite the increased number of negative newspaper articles about foragers ([see here](#) for a list of examples), a survey of professional UK foragers rarely reported clashes with nature conservation or forestry managers ([Lucasz et al 2021](#)).

There is an increasing body of evidence that foraging increases the sense of connection people feel with nature. Small-scale activities can play an essential role in developing connections to landscape, informing a sense of responsibility ([Butler et al, 2021](#)). That sense of connection is operationalised to protect those spaces from economic pressures. Nobel Laureate Elinor Ostrum demonstrated how local communities can manage community resources to access benefits while conserving their status when communities are given power to manage their local resources. (See, for example, '[Unlocking Public Entrepreneurship and Public Economies](#)', Ostrum, 2005)

Connecting Traditional Ecological Knowledge with landscape management is recognised as supporting conservation, even while allowing people to make use of natural resources ([Kimmerer 2002](#)). Foraging is a realm in which even urban inhabitants disconnected from intergenerational transmission of knowledge can learn ecological knowledge and be influenced by it. Empowering environmental stewardship is critical for conserving biodiversity. As 75% of terrestrial nature has

been shaped by human habitation and use for more than 12,000 years engaging with local communities and supporting their sense of being custodians of nature is important for conserving biodiversity ([Ellis et al 2021](#)).

It is unhelpful to polarize discussions around foraging as “foragers v conservationists” as most foragers consider themselves ‘protectors of nature’, while many conservationists forage. There are many examples of conservation organisations promoting foraging as a tool with which to connect the general public with plants and fungi (see: [Nature Scot](#), [Woodland Trust](#)). It is this common ground from which any wild food accreditation scheme should grow, in order to avoid further tensions and establish an agreed curriculum with competency and responsibility in foraging behaviours for both private foragers and those engaged in commercial foraging.

Non-Native Invasive Species, Foraging and Conservation

Being abundant and often easy to recognise, edible non-native invasive species are commonly foraged. Some of these are widely considered ‘nuisance plants’ or ‘weeds’ but are generally accepted as naturalised (eg ground elder (*Aegopodium podagraria*)), while others are regarded as invasive and strictly controlled with severe legal penalties imposed on those who cause their spread (eg Japanese knotweed (*Fallopia japonica*)). Others fall somewhere in between (eg few-flowered leek (*Allium paradoxum*) and sitka spruce (*Picea sitchensis*) ([Nygaard & Oyen 2017](#)).

As some of these non-native invasive species have medicinal benefits (eg use of Japanese knotweed extract for treatment of Lyme disease ([Feng et al, 2020](#)), high nutritional content or appealing flavour (and sometimes all three), they are appealing to foragers. There is a fear that increased use may result in increased risk of them spreading through careless handling/disposal. On the other hand it has been suggested that careful harvesting of problem species could help to control them ([Dabady & Stark 2017](#)).

Control of non-native invasive species with glyphosphate and other chemical based weedkillers is a potential health threat to foragers who cannot recognise its signs and its use is seldom clearly publicised.

Much positive information on the use of invasive species appears in social media posts, many of which do not adequately examine the potential danger to foragers from chemical treatment, or the threat to biodiversity and legal implications of causing their spread through improper handling. For example, a quick survey of the 10 most popular Instagram posts (with a collective audience of 266,000) promoting the harvesting and use of Japanese knotweed found only two of those posts mentioned responsible handling/use/disposal. Most posts cited the eating of Japanese knotweed as a chance to “eat it out of existence”, but without clear messaging around how to avoid spreading it or how unrealistic that possibility is.

In the face of this surging popularity, the “don’t touch” messages appear to have limited effect. As the interest in using invasive species seems highly unlikely to abate, clear messaging and benchmarking around responsible handling in both private and commercial settings seems overdue.

2. Agencies Involved

The concept of a Wild Food Accreditation Scheme for the UK has arisen from following organisations, agencies and initiatives.

2.1 The Association of Foragers <https://foragers-association.org>

The Association of Foragers (AoF) was established in 2015 to provide support to its members and serve as a coherent voice to promote and support responsible foraging. Membership is only open to those actively engaged in a professional foraging activity. This includes foraging educators running courses, workshops and events, authors, and those involved in picking ingredients and making produce from foraged plants, seaweeds and fungi. As of January 2022 membership stands at 130.



“The Ethnobiology of Contemporary British Foragers: Foods They Teach, Their Sources of Inspiration and Impact”, ([Luczaj et al, 2021](#)) gives a deeper insight into the make-up, skills, motivations and activities of the group. All Members share a common interest in caring for the environment and the natural world and in awakening an interest in, and love of, nature in the public. All members have also signed up to a common [Principles of Practice](#) and actively promote sustainable, safe and considerate foraging through their activities, in accordance with the laws of the lands.

The Association is **not an accreditation scheme** and does not confer any proficiency status beyond agreement to adhere to agreed Principles of Practice, approval of new members by existing members, or removal of members who do not uphold Principles of Practice. In the absence of any formalised accreditation, some organisations (including NatureScot) have treated it as some form of loose accreditation.

Members have a wide range of expertise and experience. In 2020 the Association surveyed its members. To give some insight into the wild food sector, some data from that survey is presented below:

- 90% of AoF members are UK based
- 55% Live in rural locations (village of countryside), 45% in urban settings (towns or cities)
- 50% Earn over half their income from foraging
- 90% Earn some or all of their foraging income from teaching
- 15% Earn some or all of their foraging income from supplying
- 78% Of all businesses are sole traders
- 50% Earn more than half of their entire yearly income from teaching foraging
- 44% Earn between £5,000 and £20,000 PA from foraging activities

(Sample size 55 comprising 54% response from 120 members)

As membership is restricted to individuals who can demonstrate a significant proportion of their income comes from the foraging sector, this data under-represents the use of wild ingredients in larger businesses where their use is just a small part of the overall offering (eg chefs using wild ingredients, or preserve producers with one wild product line).

The AoF has recognised the need for, and led on, the development of a wild food accreditation scheme, establishing the concept and securing funding from NatureScot to scope the development of a scheme in this current round of research. In doing so, the AoF has engaged with, discussed and debated internally and reached out to other stakeholders to develop an accessible, meaningful wild food accreditation scheme that promotes safe and responsible foraging in the UK. Details of this outreach can be found in Section 6 of this report.

Although the AoF is international, 90% of members are UK based, and it is accepted that any such scheme must - at least initially - be UK based only. A successful UK scheme could work as a model for other such schemes elsewhere in the world.

The AoF has expressed a desire to work with statutory bodies and agencies to ensure that foraging has a vital role in future land use policy, citing studies that prove people who engage with nature through foraging, develop a caring relationship with the natural world, becoming good stewards and advocates for nature (see [Butler et al, 2021](#), [Fischer & Kowarik, 2020](#))

The AoF *“sees foraging playing an increasingly important role supporting, promoting and defending the health of all plants, fungi, algae, animals (including humans) and the habitats/environments in which they exist”* (AoF [Principles of Practice](#) 1.1)

and

“recognise the ecological interconnectivity of all species and seek to spread knowledge, understanding and best foraging practice in a move towards more diverse and resilient food systems and land use” (AoF [Principles of Practice](#) 1.2)

Teaching foraging skills for money usually arises organically from a combination of a passion for the subject, seeking a lifestyle business, experience and self-confidence.

Almost all foraging teachers build experience through sharing their knowledge with friends or on an unpaid basis before recognising the demand for their knowledge might support an income, or more often part of an income. Beyond insurance and basic food hygiene qualifications, there are currently no requirements to become a foraging teacher.

2.2 NatureScot & Scotland's Natural Larder



<https://www.nature.scot/about-naturescot>

NatureScot is Scotland's Nature Agency (recently rebranded from 'Scottish Natural Heritage'). Its Corporate Plan for 2018-2022 states:

"The priorities and activities carried out by SNH support the purpose of the Scottish Government to focus government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth".

To this end it notes that:

"Connecting people and nature is vital to rise to the challenges of our times and contribute to prosperity and wellbeing".



Scotland's Natural Larder is an initiative led by NatureScot that aims to

"reconnect people with local and natural produce that has been harvested or hunted, encouraging Best Practice and responsible use of natural food resources".

NatureScot has part-funded the scoping of this wild food accreditation scheme.

<https://www.nature.scot/foodanddrink> <http://scotlandsnaturallarder.org>

2.3 Wild Wonders Wild Food Business Training Project

<https://www.fvl.org.uk/foraging-wild-food/>

The seeds of a wild food accreditation scheme germinated during a 2019 transnational LEADER-funded project called Wild Wonders. This project included an economic development training program in the Forth Valley and Lomond LEADER area aimed at food businesses and outdoor/nature tourism businesses, to increase their skills and abilities to use foraging and wild food in their offerings.



The course was designed and delivered by Mark Williams of Galloway Wild Foods, comprising 9 modules over 9 months, covering a wide range of subjects including plant, fungi and seaweed identification and use, chemical safety of wild plants, how to guide, event design and delivery, product development, and using a range of specialised to tutors.

For the 12 places on offer, 75 applications were received, demonstrating a huge demand for information and support around establishing and developing foraging-based businesses. A report on the course and its outcomes is attached in Appendix A.

Part of the course required participants to visit other countries to benchmark activities and business models and share learning. On the Scottish participants' trip to Finland in summer 2019 a talk by the Finnish Forest Service outlined several schemes to improve public physical and mental health, and stimulate rural economies, through the support and promotion of foraging based businesses and healthy wild foods in the diets of the population. As part of a wider public health campaign, such strategies had helped to transform Finland from being one of the 'sick countries' of Europe to having one of its best public health records. Part of this campaign was an accreditation scheme whereby foragers could take a test to gain a stamp of accreditation documenting competence in a number of common wild harvests, the intention being to promote safe identification/usage and sustainable harvesting practices. Meetings with the Finnish Government's Forestry Department also gave insight into wide scale public sector funding and research around the promotion of foraging for health, leisure, tourism and commerce.

Foraging teacher (and co-author of this report) Mark Williams, who was delivering the training to the Scottish part of the Wild Wonders project, came back to the UK with the idea of species-specific tests to demonstrate insight and competency around the use of wild harvested plants, fungi, and seaweed.

2.4 Scottish Non-Timber Forest Product Network (SNTFPN)

Convened by Dr Marian Bruce, Director of Highland Boundary Distillery and hosted by Scotland Food and Drink, the SNTFPN was conceived as a collaborative partnership of academics, food and drink businesses, conservation groups and third-sector and government organisations committed to working together to realise the full potential of under-utilised non-timber forest resources (including but not limited to wild food) in Scotland's forests. The stated goal arising from the inaugural meeting held on 5th September 2019 was "...to foster research and innovation in non-timber forest products, thereby supporting a sustainable bio-economy in order to generate positive impacts for Scotland's unique biodiversity, public health and the rural economy". See Appendix B for the full report of the meeting.

Much discussion at the meeting focussed on the difficulties that businesses face when seeking to responsibly utilise wild harvests. In particular, a lack of clear, accessible information around sustainable harvesting and safe usage was flagged up as a key barrier. Georgina Finch, Policy Advisor for Food Standards Scotland (FSS), acknowledged the challenges faced by the FSS and Environmental Health Officers in understanding how wild ingredients fit within Hazard Analysis and Critical Control Point (HACCP) principles, food labelling, and public safety and that these challenges were growing as more producers engaged with wild ingredients. Conservationists reminded the meeting that the "protection of rare species and habitats needs to be considered in any promotion of the gathering of wild food", and that "guidelines may vary for each different species and habitat".

Mention of the Finnish Wild Food Accreditation Scheme model brought interest and approval in principle from attendees, with no dissent and the idea of a wild food accreditation scheme backed by foragers, conservationists, Food Standards Scotland, academics, food and drink businesses, business development agencies and other stakeholders started to ferment.

Contemporaneous with the award of funding of this scoping work, funding for initial work of the SNTFPN was confirmed from SEFARI Gateway. This award to Dr Marian Bruce in collaboration with Professor Wendy Russell at The Rowett Institute, University of Aberdeen. This project will "collect stakeholder/policy data and opinions to inform the economic potential, setting of priorities and wider environmental and societal implications around the use and promotion of Scotland's natural flora produced on Scotland's marginal lands" and is synergistic with the development of a Wild Food Accreditation Scheme.

It is useful to note that an academic-only network, the Scottish Natural Products Network ([SNaPNet](#)) was also convened by IBioIC in 2021, further demonstrating the growing interest and global demand for nature-based products.

2.5 StarTree <https://star-tree.eu/>

StarTree, a pan-European project based in twelve countries, explored the sustainable use of forest resources for rural development and ran from November 2012 - October 2016. This project was funded by European Union's Seventh Programme for research, technological development, and demonstration. The UK nations were represented by West Wales, and in Scotland the charity Reforesting Scotland was the stakeholder organisation. As well as cross-border learning amongst the European partner organisations, the outputs included project results, guidelines, policy recommendations, publications detailing practical and professional aspects of managing and using forest products resources, and a searchable database of information collected through the regional and in-depth case studies. A key finding from the report was the lack of legislation in this area despite the €2.76 billion economic value of the sector across Europe. Although the StarTree Project has finished, much of its work remains relevant to the current Wild Food Sector. An excellent review of the project and how it relates to the UK (predominantly Scottish) wild food sector was published in Reforesting Scotland Journal ([Chapman, 2017](#))

3. Objectives of a Wild Food Accreditation Scheme

Arising from the context, issues and agencies discussed above, the objectives of a Wild Food Accreditation Scheme are proposed as follows:

- Education about the safe use and sustainable harvesting of wild plants and fungi
- Re-connecting people to nature and ecosystems and encouraging their understanding and protection
- Supporting health and well-being through access to safe, nutritious food and nature-based activity for physical and mental health
- Stimulating and supporting low carbon, resilient, biodiverse local food systems
- Increasing food security and nutrition equity
- Supporting innovative, sustainable businesses that use wild food
- Creating rural jobs in hospitality and food tourism through promotion of the under-utilised natural wild foods

3.1 Alignment of Wild Food Accreditation Scheme Objectives with Scottish Government Policy and Strategy

The objectives of Wild Food Accreditation Scheme align closely with multiple national strategies within the UK, and in Scotland in particular. The scheme could contribute to delivery of many of Scotland's national outcomes as set out in the National Performance Framework, namely in the areas of communities, environment, health, education and business in [Scotland's Fourth National Planning Framework Position Statement](#) published Nov 2020 and summarised in the figure below.



These outcomes of the National Planning Framework reflect the values and aspirations of the people of Scotland and are aligned with the United Nations Sustainable Development Goals. A Wild Food accreditation Scheme would contribute to the Goals for Education, Health, Fair Work and Business (particularly hospitality and tourism) supporting 8 out of 17 [UN Sustainable Development Goals](#) as follows:

- Goal 2: Zero hunger
- Goal 3: Good health and well-being
- Goal 8: Decent work and economic growth
- Goal 10: Reduced inequalities
- Goal 12: Responsible consumption and production
- Goal 13: Climate action
- Goal 14: Life Below Water
- Goal 15: Life on land

The concept of a Wild Food Accreditation Scheme maps to several National Outcomes in the [Environment Strategy for Scotland 2020](#), specifically:

- Economy: We have a globally competitive, entrepreneurial, inclusive and sustainable economy
- Education: We are well-educated, skilled and able to contribute to society
- Environment: We value, enjoy, protect and enhance our environment
- Fair work & business: We have thriving and innovative businesses, with quality jobs and fair work for everyone
- Health: We are healthy and active.

A Wild Food Accreditation Scheme also maps to [Scotland's Land Use Strategy 2021-26](#) via an ecosystems approach which is "a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way." (*The Convention on Biological Diversity, 1994*)

A Wild Food Accreditation Scheme would also support the [Scottish Good Food Nation policy 2014](#), which aspires to local, fresh, healthy and environmentally sound food for everyone in Scotland, as well as the [Ambition 2030 Strategy for growth of Scotland's Food and Drink Sector](#).

Two out of three objectives of [Scotland's Forestry Strategy 2019–2029](#) would be supported by an Wild Food Accreditation Scheme, namely, “to increase the use of Scotland’s forest and woodland resources to enable more people to improve their health, well-being and life chances” and “to increase the contribution of forests and woodlands to Scotland’s sustainable and inclusive economic growth.”

3.2 Alignment of a Wild Food Accreditation Scheme Objectives with UK and English Government Policy and Strategy

Relevant policy documents for England, Wales and Northern Ireland have proved hard to identify. This may be due partly to the authors’ greater familiarity with the Scottish situation, but also because there seems to be an absence of accessible information around this area outside Scotland. Further research of UK-wide and English, Welsh and Northern Irish policy should be a priority area for future research.

3.3 Alignment of a Wild Food Accreditation Scheme Objectives with Post-Covid Recovery

A WFAS would align with the green recovery that all UK governments agree is necessary after the Covid-19 pandemic. In Scotland this is detailed in the Green Recovery as reported by the [Just Transition Commission](#) and across the whole UK, reconnecting people with nature is one of three themes for the recovery (“[Environmental charities and partners across England to benefit from £40m fund which will create and retain jobs while restoring nature and tackling climate change](#)”) and nature-based jobs are a priority in the [UK Government’s Ten Point Plan for a Green Industrial Revolution](#) and the [report from the Independent Advisory Group on Economic Recovery “Towards a Robust, Resilient Wellbeing Economy for Scotland”](#)

3.4 Alignment of a Wild Food Accreditation Scheme Objectives with Educational Policy

An analysis by Amy Rankine of how foraging and wild food education could fit into [Education Scotland’s Curriculum for Excellence](#) identified 18 different ‘experiences and outcomes’ in the following areas (see appendix C):

- Social Wellbeing
- Physical Wellbeing
- Food & Health - Nutrition
- Food & Health - Food & The Consumer
- Food & Health - Technological Skills and Knowledge
- Science
- Planet Earth
- Biodiversity and interdependence
- Biological Systems - Inheritance
- Social Studies - People, Place & Environment

4. Details of Scoping Work Undertaken

Building on preliminary scoping and development by the Association of Foragers, in February 2021 The Association of Foragers and NatureScot jointly funded the following scoping work around developing a system for accrediting and benchmarking safe and sustainable harvesting and use of wild species:

- Explore the need for a WFAS, including potential benefits and challenges
- Research, identify, and report on the most appropriate accreditation structure for a WFAS
- Research, identify, and report on the most appropriate online delivery platform for a WFAS
- Research, identify, approach, and report on stakeholders in a WFAS, with a view to identifying potential steering group members
- Write sample access-level tests and identify appropriate style, content, and process
- Collate and review research work with recommendations

The scoping work took place in March 2021 and was carried out by a number of researchers (12 in total). The resulting work is what makes up this report, and summaries of individual pieces of work are appended below. See Appendix D for full details.

5. Developing a Wild Food Accreditation Scheme

(see Appendix E for full report)

Several existing accreditation schemes relating to foraging/wild food were reviewed. Established botanical accreditation schemes were found to have little or no focus on the areas most relevant to foraging - safe usage and sustainable harvesting. Schemes that relate specifically to the use of wild species in a foraging and food context appear to only be recognised by the businesses that establish and run them (for profit) and do not publicly specify what is being accredited or how.

It was concluded that:

- Accreditation schemes involving a range of stakeholders in development, assessment, and ongoing evaluation were seen to achieve wider and more meaningful recognition.
- Consumer confidence, responsiveness to change, and accessibility are key tenets of any wild food accreditation scheme
- Access to land and the confusion around the current legal framework were noted as key barriers to access for the use of wild species for both personal use and in businesses.
- To keep accreditation accessible (keeping costs low), it would be preferable to place accreditation within the auspices of an NGO or non-profit organisation or government body
- An accreditation scheme should be flexible and responsive, not forcing individuals or businesses to pay for accreditation they do not need
- The value of diverse learning routes must be recognised by the scheme

- A diverse stakeholder/steering group for any accreditation scheme was considered important, and the fields of taxonomy, ecology, ethnobiology, conservation and food safety were noted as key disciplines that should inform such a scheme. The Association of Foragers was noted as the only group that straddles all these disciplines (see table below).
- A 3-tier accreditation scheme was identified, and this is further detailed below

Areas of knowledge that underpin foraging accreditation	Discipline	Examples of organisations with expertise
Correct identification of species	Taxonomy	Association of Foragers British Ecological Society Botanical Society of Britain and Ireland
Ecological knowledge of species	Ecology	Association of Foragers British Ecological Society Botanical Society of Britain and Ireland
Knowledge of edibility of species	Ethnobiology	Association of Foragers International Society for Ethnobiology Society for Economic Botany
Sustainable harvesting techniques	Conservation	Association of Foragers British Ecological Society Botanical Society of Britain and Ireland International Union for the Conservation of Nature Specialist Groups (<i>e.g. medicinal plants</i>) Natural England NatureScot
Legislative constraints and requirements	Food safety	Association of Foragers Environmental Health

		Food Standards Scotland Food Standards Agency
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Table detailing the diverse attributes of organisations required for any stakeholders and steering group members of an accreditation scheme.

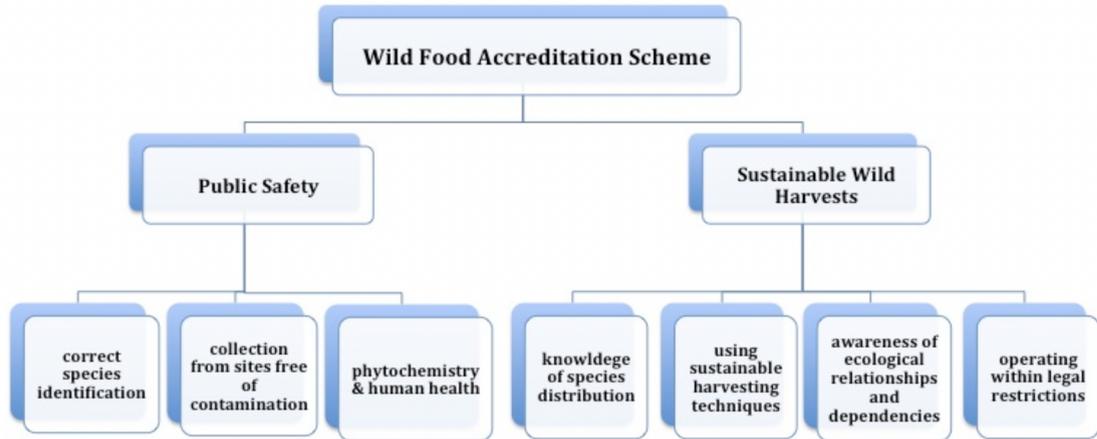


Figure: Three-tiered Building Blocks of a Wild Food Accreditation Scheme

Arising from these building blocks, the following accreditation structure is proposed.

Level 1: Basic engagement. Online open book multiple choice test. An encouraging entryway and a means for participants to gauge their knowledge around safe identification, safe usage and sustainable harvesting while foraging for personal use.

Level 2: Competence to supply or guide people in accessing foraged resources. Field assessment and accurate identification of species, awareness of sources of environmental contamination, sustainable harvesting techniques, legal constraints on wild harvesting, and relevant safety standards in supplying or teaching about wild ingredients..

Level 3: Assessor (of Level 2). Recruitment or delegation to individuals that stakeholders agree possess the necessary expertise to evaluate level 2. Relying on at least two, possibly more, assessors who represent the interests of different stakeholders would allow the certification to draw on expertise from different areas that need to be evaluated.

6. Stakeholder Engagement

Dr Marian Bruce (Founder of the Scottish Non-Timber Forest Product Network, Director of Highland Boundary and Former Biodiversity Fellow at University of Glasgow) and Michael White (Association of Foragers) were engaged to contact prospective stakeholders within the following sectors from across the UK: Government Departments or Agencies, Third Sector Organisations, Businesses including restaurants serving wild food, academic researchers, professionals involved in nature-therapy.

Marian dealt with Scotland and Northern Ireland, Michael with England and Wales. Potential stakeholders were contacted with a personalised email request for engagement and a file containing a summary of the background to and aims of the proposed scheme between 19th and 25th March 2021. A standardised email and accompanying stakeholder letter was prepared and used throughout (Appendix F). Individual or organisation replies to follow-up emails and phone enquiries were fielded and noted and completed stakeholder forms were gathered and were continued to be compiled up until the end of May 2021.

The following data for prospective stakeholders were documented in a spreadsheet:

- Stakeholder Organisation
- Website
- Generic Email Address
- Phone Number
- Name of Primary Contact
- Email of Primary Contact
- Details of Contact Made
- Response to Approach
- Signed form returned

In total 89 potential interest groups and stakeholders were contacted across the UK. The short timescale for building relationships with stakeholders was challenging, especially given Covid 19 working from home policies and the large size of some organisations. This outreach work is ongoing (in a voluntary capacity). In general stakeholders who responded were supportive of the WFAS as outlined, in most cases were willing to be involved and numerous potential benefits of the scheme were acknowledged.

A member of staff from a Scottish government agency involved in land management replied:

“The establishment of a wild food accreditation scheme would be a very positive development and serve as a driver for promoting sustainable foraging which is a major concern for land owners.”

One academic researcher responded:

“I will be delighted to be part of it and to share my expertise in food science and nutrition. I have read with interest the attached document and, as rightly said, the nutritious aspect and safety of wild plants are important aspects which should be considered and transferred to the users on food labelling or menus in restaurants.”

Responses from government agencies were notably absent, slower or more cautious than from businesses, academics or third sector organisations. This may be a result of the large size of such organisations or a lack of communication due to Covid-19 working-from-home restrictions rather than lack of interest. Further follow-up contact should be made, and the value of personal contacts and building formal and informal relationships with key organisations will be crucial. Any future work should include clear identification of key stakeholders and targeted outreach.

See Appendix G1 and G2 for the stakeholder engagement reports.

7. Evaluation of Delivery Platforms for a Wild food Accreditation Scheme

Research was commissioned and conducted into establishing an appropriate online platform for the delivery of a scheme.

As the overall structure of any potential accreditation scheme hasn't yet been fully developed, it was challenging to identify key features of an appropriate delivery system. Based on preliminary discussions, 8 potential platforms were evaluated according to 30 criteria and the 3 highest-ranked potential platforms identified were costed. This analysis provides an extremely useful starting point from which to build an online platform once the structure, management and content are agreed.

As the report has intrinsic value and commercial sensitivity, access is restricted. You can request access here or contact admin@foragers-association.org :
<https://docs.google.com/spreadsheets/d/1080x2iDxsCgsMHbCG6Rf3wZA1ckUIWh-p21eenmKhps/e/dit?usp=sharing>

8. Level 1 Test Development

Based on the recommended 3-tier structure, and in the absence of any working examples in the English language of what a wild food test might look like, 15 Level 1 Tests have been developed by The Association of Foragers. The L1 test development process is intended to:

- Explore the parameters of what a multiple-choice level 1 test can cover
- Develop a process for writing and reviewing future tests
- Deliver working tests to demonstrate the concept to potential stakeholders
- Understand the specifications of any prospective online delivery platform
- Identify and promote an accepted resource base for understanding the species involved

The L1 Tests themselves are ONLY intended to demonstrate that those foraging for personal use have ENGAGED WITH AND UNDERSTOOD ISSUES AROUND SAFE IDENTIFICATION, SAFE USAGE, AND SUSTAINABLE HARVESTING of the particular species covered by each test.

Level 1 Tests ARE NOT INTENDED TO ACCREDIT COMPETENCY FOR COMMERCIAL FORAGING ACTIVITIES OR WILD FOOD USAGE.

A key challenge going forward will be to ensure that these access-level tests are not misrepresented as Level 2 Accreditation and therefore clear communication and branding is required.

The Level 1 Tests were proposed to be around 20 questions long (some species may require more or fewer questions), including diagrams/photographs to support identification questions, and sources/copyright requirements have been recorded for proposed images. As L1 tests are intended to be engaging and educational, a crucial part of the test writing process was the provision of suitable resources and references.

The test writing process was as follows:

1. Recruitment of test writers and a test coordinator from the AoF
2. Allocation of species to test writers based on preference/expertise
3. Briefing and guidance notes provided to test writers
4. First draft written
5. First draft reviewed by another (selected) test writer, who suggested edits/improvements
6. Second draft
7. Second draft reviewed by Test Coordinator with support from Project Manager
8. Third draft
9. Third draft forwarded to AoF Committee with any unresolved issues noted
10. Third draft reviewed and revised by AoF Committee
11. Final draft

Overall, this initial test-writing pilot project was a very time consuming and a steep learning process but gave valuable insights into test-writing using a number of different authors, with lessons to help lay the ground for developing future tests with a wider range of inputs from a diverse steering group. Please see the Test Coordinator's Report in Appendix H for full details.

8.1 Sample Level 1 Tests

Based on the experience of foraging teachers in the AoF, a list of 43 plants, 23 fungi, and 15 seaweeds was selected to reflect the species of most interest to foragers in the UK (see Appendix I).

8 Level 1 Test Species were selected from the list to explore and illustrate the potential and challenges of covering often complex messages around identification, safe usage and sustainable harvesting across plants, seaweeds and fungi in an online multiple-choice format. It is clear that some species present more challenges than others, which is both a strength and a weakness of a species-specific approach.

As similar questions came up repeatedly for different species, the possibility of more generic 'foraging tests' for plants, seaweeds, and fungi was discussed. It was decided that the flexibility and sensitivity of a species-specific approach was preferable, fitting with models used in other educational settings, and allowing test-sitters to focus on species relevant to their personal interests and locale. This model also reflects a key tenet of The Association of Foragers' Principles that: "2.3 each individual species that is foraged ... requires its own set of skills. In this respect it is impractical and undesirable to impose a comprehensive set of rules"

Links to 6 sample tests that have completed the 11 stage writing and review process are listed below.

Note: As they may be used in future accreditation, these tests are currently copyrighted to the Association of Foragers who control access. Access to 2 tests is unrestricted. Please request access to further tests via the test link, or email admin@foragers-association.org.

L1 Test: Penny Bun (*Boletus edulis*)

<https://docs.google.com/document/d/1GmkufEL2MjwgHCho3HdWd0nktk3zoOUHpvzeUTDaK1U/edit?usp=sharing>

L1 Test: Laver (*Porphyra* and additional species)

https://docs.google.com/document/d/1BdvFWx_nJSyUx2ER3S4tn5mVKDrb6NTz_nVGcXONITY/edit?usp=sharing

L1 Test: Chanterelle (*Cantharellus cibarius*) (Open access)

https://docs.google.com/document/d/1g_In14Fac4xC1Y0qjr723JDnkYlZni622OymkNqr4Zc/edit?usp=sharing

L1 Test: Few-flowered leek (*Allium paradoxum*)

<https://docs.google.com/document/d/1v4LcWSDnXNwipZHH4ynZemvZjZPVnNvl7o6Jt8mrgZU/edit?usp=sharing>

L1 Test: Pepper dulse (*Osmundea pinnatifida*)

https://docs.google.com/document/d/1WpliNB9n04JrU_siyuVYeLvzo_FKNPtIF_zQB8yB6oU/edit?usp=sharing

L1 Test: Sea Beet (*Beta vulgaris maritima*) (Open access)

https://docs.google.com/document/d/1RmdVn9DB68UDYV_r1DNyx6TZlyBxSZuL6zf3zFu3Ds4/edit?usp=sharing

A further 9 tests are at 2nd or 3rd draft stage, awaiting review, revision and approval:

- Meadowsweet *Filipendula ulmaria*
- Nettles *Urtica spp*
- Wild garlic *Allium ursinum*
- Common sorrel *Rumex acetosa*
- Blaeberry/Bilberry *Vaccinium myrtillus*
- Japanese knotweed *Reynoutria japonica*
- Sugar kelp *Saccharina latissima*
- Wood blewit *Clitocybe nuda*
- Common hogweed *Heracleum sphondylium*

8.2 Proposals for Future Test Development

Considering that this was just the first stage of development before further review by other stakeholders, a need to streamline the test writing process is evident, and the following improvements have been identified to help achieve efficiency, consistency and accuracy:

- Clear definition of species being tested in the test title
- Development of standardised 'stem questions' that can have different species 'plugged in'
- Clear focus on safe identification/usage and sustainable harvesting
- Increased remuneration for Test Coordinator role
- Enhanced selection/training/support for test writers, including in use of the test writing platform

We recommend that this work be prioritised over further test development.

9. Wild Food Business Case Studies

In order to evaluate the potential usefulness of a wild food accreditation scheme, four key wild food business types were identified and interviewed:

- Wild Food processing business - producer (i.e. making a product using wild harvests)
- Wild Food processing business - restaurant (i.e. using wild harvests in restaurants)
- Wild Food education business (i.e. guided walks, workshops, consultation)
- Wild Food supply business (i.e. harvesting wild species to sell)

The use of wild ingredients, the demands and insights of each business type is discussed below including perspectives on what benefits and challenges a wild food accreditation scheme might bring to different sub-sectors.

9.1 Case Study: Wild Food Processing Business - Producer

Highland Boundary Distillery, Perthshire

www.highlandboundary.com

Highland Boundary Distillery uses sustainably wild-foraged botanicals to create *Wild Scottish Spirits* and liqueurs with unique flavours and with a strong Scottish provenance. The company was founded in 2016 by husband-and-wife team Marian Bruce and Simon Montador. The company has received multiple innovation awards and industry acclaim for their products, being awarded a Gold Medal at the San Francisco World Spirits Competition for their first release Birch and Elderflower Spirit in 2018 and Double Gold for their second release, Larch and Honeysuckle in 2020. Highland Boundary spirits are stocked in fine dining restaurants, including the Michelin starred Restaurant Martin Wishart in Leith.



Highland Boundary have created a new market sector for botanical spirits in Scotland that is gathering pace and is attracting a younger audience than for gin or whisky.

Despite having a background in biological research, Highland Boundary distiller Marian Bruce found that the absence of chemical and toxicological data for our native flora or an obvious, reliable source of such information was a barrier to the use of more unusual wild food ingredients in their drinks. This frustration was a motivation for the establishment of SNTFPN, which aims to bring research establishments closer to end users of the research and make sources of this valuable information about the use and regulation of Scotland's native flora more visible and accessible.

Highland Boundary is the only company in Scotland to hold a botanical picking license from Forestry and Land Scotland (FLS), who manage nationally owned forests. This license was negotiated first as a research license, which demonstrated the sustainability of picking from the young trees adjacent to the distillery, then with yearly permissions and more recently with a longer-term license. Although staff at FLS have been very supportive of the business and the practicalities of the botanical collecting on the ground, the lengthy and difficult nature of the negotiation of this license indicates the ground-breaking nature of this relationship with community driven innovation.

If more rural businesses are to benefit from wild food sector opportunities in their local forests, there is a need for a transparent process by which applications and licenses can be easily obtained from landowners, including the national forest estate. A Wild Food Accreditation Scheme will create trust amongst landowners and enable greater access for food businesses.

9.2 Case Study: Wild Food Processing Business - Restaurant

Chef Pamela Brunton, Inver Restaurant, Argyll

<https://inverrestaurant.co.uk>

Inver is an informal Scottish Fine Dining restaurant based on the Cowal Peninsula in Argyll and Bute. Award winning Chef Pamela Brunton uses more than 50 different foraged plants, fungi, and seaweeds in her seasonal menu. Pamela has been foraging for more than 20 years and has a vast knowledge of Scotland's wild harvests, picking many species herself from the shores of Loch Fyne where the restaurant is based.



The restaurant has always focussed on locally sourced seafood, game, plants and fungi and the story of the wild food they serve is an important part of the “story of their place” as it continues the ancient history of foraging in the Cowal Peninsula and Loch Fyne. As well as foraging for themselves, the restaurant also sources wild food from a small number of trusted suppliers who they know personally and trust to have the knowledge base to identify species correctly and to ensure sustainable harvesting. Pamela would welcome a wild food accreditation scheme as it would raise the profile of Scotland's native wild food, professionalise the sector and enable confident sourcing of new suppliers.

9.3 Case Study: Wild Food Education Business

Mark Williams, Galloway Wild Foods, Galloway, SW Scotland

<https://gallowaywildfoods.com>



*“90% of members of the Association of Foragers earn money from teaching about foraging”
AoF Survey of Members 2020*

Galloway Wild Foods is a one-person nano-business run by Mark Williams that demonstrates many of the core activities of the foraging education sector. Galloway Wild Foods is used here as a case study because it is one of the longest established wild food teaching businesses in the UK. Mark has been teaching about wild foods for 32 years; for the last 12, it has been his sole income. As co-author of this report, it was also easier to research Mark’s experience.

The business demonstrates many aspects of other wild food education businesses, as well as providing insight into trends and developments in the sector.



Galloway Wild Foods is a Galloway and South Ayrshire Biosphere *Certified Business*, an accreditation awarded to business that embody the UNESCO Biosphere’s goals of:

- Conservation: promoting the preservation of wildlife, habitats & landscape
- Learning: supporting a better understanding of nature & global issues
- Development: fostering a sustainable economy and society

Mark uses social media and his extensive website of free foraging information for the joint purposes of promoting safe and sustainable foraging, and promoting his paid-for services, a model typical of the foraging education sector ([Townsend, 2020](#)).

The core business comprises:

- Bookable guided walks
- Private bookings for families and groups
- Consultation for businesses wishing to use foraged ingredients.
- Live online 1-to-1 mentoring for individuals looking to connect more deeply with foraging
- Paid for foraging webinars

Mark runs about 30 bookable foraging experiences per year (mostly in SW Scotland), all of which sell out and have waiting lists. Some events are run in conjunction with conservation organisations on Nature Reserves (e.g. The Woodland Trust, NatureScot). Approximately 70% of clients travel for two hours or more to attend foraging events, often visiting SW Scotland for the first time for the event

and incorporating an overnight stay. Thus, this one-person nano-business leverages significant further benefits to the rural economy.

Consultation for Small Businesses and Start-Ups

Although online mentoring was originally targeted at 'personal use foragers', 2021 has seen a 10 fold increase in mentees who are seeking advice on setting up or expanding foraging-related businesses. This echoes the popularity of the 2019 year-long Wild Food Business Training Course that Mark designed and delivered for Forth Valley and Lomond LEADER, which had 75 applications for 12 places (see Appendix A).

About 2/3rds of the business start-ups being mentored by Mark are, or intend to be, educational (ie. providing guided walks), and the rest plan processing or adding value to wild ingredients (eg a high end catering business, a restaurant adding mail order foraged preserves to its offerings, a start-up distillery). Consistent questions across all these businesses are:

- How do I use wild foods responsibly and legally in a commercial setting?
- Where do I find definitive information on the safe usage of wild species?
- How can I demonstrate my competence to sell/teach about wild species?
- How can I demonstrate my competence to landowners/clients/the Food Standards Agency/collaborators etc?
- What is appropriate in terms of insurance, risk assessments etc?

Consultation for Larger Businesses

Mark also consults for an increasing number of medium to large scale businesses looking to use wild ingredients. These larger clients mostly comprise distillers (eg. Remy Cointreau, Diageo, William Grants, Glens) and restaurant/hotel chains (eg. MacDonald Hotels). Sometimes larger clients are looking to identify scaleable wild harvests, and establish safe, sustainable and legal usage parameters but more often they are gaining 'inspiration' from wild species before seeking cultivated equivalents. One larger client employs a full-time forager, has developed in-house species-specific harvesting plans, and funded plant conservation projects.

Wild Food Education for the General Public

Among clients seeking to learn about foraging for personal (not business) use, the queries that come up most often are:

- What is out there that I can eat?
- Is it OK to harvest this plant?
- What is an appropriate amount to take?
- Are there any safety concerns with regard to the species' chemical composition?
- What are safe tolerance levels?

Mark has observed a clear need and demand from all parts of the wild food sector for some form of widely accepted benchmarking for wild harvests. Although he feels uneasy about placing barriers between people and foraging, he believes that a voluntary, species-specific accreditation scheme, championed by foragers, in partnership with other stakeholders will serve the sector, and wider society well in the long run, by promoting physical and mental health, and creative nature-based rural businesses, and helping to avoid conflict, insensitive use of wild species and death or injury through misuse.

9.4 Case Study: Wild Food Harvesting and Supply Business

Coeur Sauvage, Renfrewshire, Scotland

<https://coeursauvage.scot/>



"15% of AoF members earn money from supplying wild harvests"
- AoF Survey of Members 2020

Maxime Jay established *Coeur Sauvage* in 2016 as a supplier of foraged ingredients. Most of his clients are in the high-end restaurant sector in Scotland. He supplies over 200 species or parts of species, from a constantly changing list of in-season harvests that includes plants, fungi, and a few seaweeds. Wild mushrooms are in highest demand from his clients. Almost all of what he supplies is harvested in Scotland, and Maxime travels widely across Scotland to harvest and supply - in 2019 he did 50,000 miles.

Maxime's connection with foraging has followed a steep trajectory, going from zero foraging experience to supplying wild ingredients as his full-time business/job over the course of 2 years. Maxime was supported and mentored by an experienced commercial forager (30 years experience) for his first 3 years of working as a supplier.

Maxime now employs one person on a regular paid basis. He and his employee harvest much of what is sold, but he also draws on a range of 'freelance foragers' from around the country. These suppliers tend to specialise in particular species that are abundant in their locale. Supply of this nature is rarely the sole or even main income of freelance suppliers, usually providing a small amount of supplemental income. Quality-checking of wild harvests from freelance suppliers is done by eye. Provenance information or site surveys are not undertaken by or sought from freelance suppliers.

Maxime reports only a small amount of interest from his clients (mostly chefs) in the provenance of what he supplies - in terms of where and how it was harvested. It seems to be enough to most of his (predominantly Scottish) chefs that it is foraged *somewhere in Scotland*, which seems to act as a stamp of quality, further assured by the personal relationship, rapport and reliability Maxime builds with clients.

Maxime informally passes on some limited information around safe usage/handling of species verbally to clients but isn't aware of clear advice or data on safe consumption levels for most of the species he supplies. He considers that the vast majority of what he supplies is served to end-users (usually customers in restaurants) in such tiny quantities that dosage advice (for e.g. sorrel or meadowsweet) does not seem relevant. Responsibility for safe handling/usage is mostly left to his customers to ascertain and pass on to end users.

In terms of legal harvesting of wild species for commercial purposes, Maxime relies mostly upon building personal relationships with landowners. His experience of agreeing access and usage with landowners is mostly positive. He has contacted NatureScot on two occasions to confirm permission

to harvest on SSSIs. Permission to harvest was verbally granted on one occasion and a written consent was issued on the second occasion.

Coeur Sauvage does not maintain written records or maps of harvesting locations and does not undertake site/species-specific management plans for harvesting locations, relying on instinct and experience, evaluated 'by eye'. Maxime said that on one occasion, his harvesting strategy has been adapted after noticing a negative impact arising from a previous harvesting approach.

Maxime acknowledges the growing need for some form of benchmarking and/or accreditation in the wild food supply sector. In response to this, he has explored partnership with another wild food supply business (based in England) which has its own internal, self-approved quality control and benchmarking protocols in place, with a view to sharing the same, or a similar, scheme within his business.

10. Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis of the Proposed Wild Food Accreditation Scheme

Entries that relate to individuals or consumers are in plain text, whilst those relating predominantly to the Wild Food Sector and the wider economy are in italics.

Strengths

- Meets a clear demand from public, end users, and businesses
- Promotes responsible harvesting of wild food for health and wellbeing
- Promotes connection to the natural world and helps inspire care for the environment
- Promotes resilient, sustainable, and equitable food systems
- Learning opportunity for all ages and intergenerational interaction
- Responsive to growing public interest in this area, especially post-covid
- Identifies and benchmarks issues around troublesome compounds in wild harvests, *potentially providing reassurance for Environmental Health and Food Standards organisations*
- *Clarifies opaque legal regulations around foraging by taking a granular, species-specific approach*
- *Supports and promotes businesses, especially in rural areas*
- *Supports due diligence compliance in wild food-focussed businesses*
- *Raises the profile of the wild food sector in government*
- *Raises the potential economic benefits of the wild food sector*
- *Raises the profile of the wild food sector across tourism and hospitality sectors*
- *Proposed species - specific tests allows a granular, responsive approach that does not treat all species the same*
- *Helps realise potential "by catch" from other land uses*
- *Built on common ground between stakeholders*

Weaknesses

- Risk of deterring people by a feeling of need for accreditation before accessing wild food
- The number of species-specific tests required may be a barrier due to time constraints
- Limited access to wild land particularly in England and Wales
- *Cost and administration may slow development of existing wild food companies*
- *Potential barrier to entrance for new wild food businesses*
- *Uncertainty around which organisation would own or administer the accreditation system and how development would be funded*
- *Most of the work to date focusses on Scottish examples and agencies*

Opportunities

- Taps into post-covid need to reconnect with nature
- Raises the profile of our own food culture and ethnobotanical history
- Promotes diversity, equity, and inclusion in the food system
- Promotes an understanding of the importance of tackling biodiversity loss and climate change
- Promotes a cultural connection between food, land and people
- *Funding opportunities via green recovery*
- *Provides a solid platform for future research into wild harvests*
- *Creates opportunity for a regional tourism differentiation based on food and culture*
- *Creates opportunity for new rural jobs*
- *Creates opportunity for new food, experiential and scientific tourism enterprises*
- *Standardisation of allowable novel foods across and within the UK nations*
- *Promotes the use of wild foods in the creation of novel products and in the hospitality sector*

Threats

- Resistance from experienced personal use foragers
- *The lack of a host organisation for the scheme presents a potential threat to the ability to fund the development work required*
- *Misrepresentation of Level 1 Accreditation as a "Licence to Forage Commercially" for a species*
- *Scotland/England/Wales/NI split in terms of agencies, law and foraging issues*
- *Resistance from professional foragers and other wild food businesses*
- *How to initially establish L3 assessors*
- *Non-collaboration from existing (for profit) wild food accreditation schemes resulting in fragmentation, competing schemes and lack of clarity*
- *Difficulties agreeing on accurate information sources with other stakeholders*
- *Derailment by radical conservationists or radical foragers opposed to the scheme*

11. Recommendations

As a result of analysis of the scoping work carried out for this study the following recommendations are made:

Formation of a Steering Group

Building on positive responses to outreach work and with a clear strategic approach to establishing meaningful consensus across stakeholder types (roughly categorized as Foragers, Wild Food Business, Conservation, Food Standards, Academia, Government Agencies, Landowners, Botany, Mycology and Marine Science), we recommend the establishment of a steering group to develop and deliver a UK wild food accreditation scheme.

This steering group will bring together a range of skills and perspectives from different stakeholder sectors to take forward the development work and will enable applications for funding. It is advised that the group is formed and applications for funding made as soon as possible, while funding for the green recovery is available. A delay in this will be a potential threat to the momentum of the project and the availability of relevant funding opportunities.

Discussion/Agreement of Accreditation Model within Steering Group

The following model is proposed as a basis for discussion and development:

Level 1 - Hobby Foragers:

Free (or nearly free) entry level “to demonstrate engagement and understanding with basic issues of safety and sustainability” - online - multiple choice - sample tests developed to demonstrate the concept and act as a foundation for discussions with potential stakeholders

Stakeholders to work together to develop standardised “stem questions” that can have different species “plugged in”, and to agree an efficient review process for tests

Level 2 - Foraging for Business:

Demonstration of competency to supply and/or teach about wild foods through In-person evaluations, booked with L3 accredited assessors.

Level 3 - Assessors:

Initially appointed/accredited by steering group through a ‘fast-track’?

Financing Model

Due to the far-reaching nature of the proposal, a good deal of further development work is required. There is a strong likelihood that funding for further development of the WFAS via green recovery government schemes would be successful due to the multifaceted alignment of the scheme with multiple government policies and strategies related to the post-pandemic green recovery. However, time and resource to write such an application from amongst the small business owners and third sector organisations who have shown the greatest interest in developing the scheme may limit this opportunity.

The absence of EU Rural LEADER funding Post-Brexit and the lack of any alternative to replace this is unfortunate as such rural-focused funding supported previous work in this area. Discussions with SEFARI Gateway in Scotland arising from the stakeholder engagement process and the existing funding for the Scottish Non-Timber Forest Product Network, have provided a possible opportunity for future funding via their Responsive Opportunity Fund, which would fit the need for a legacy for a previous project in this area called “The Wealth of our Nation”. This would require a SEFARI researcher to lead this work and front any application, but input from any academics to assist with funding will be welcomed.

Any Wild Food Accreditation Scheme will ultimately need to be self-supporting and administrative and review costs will be substantial. Various potential income streams have been identified, including:

- Subscription
- Payment per test
- Percentage of L3 Assessors fees going back into the scheme
- Annual contributions from stakeholder organisations
- Other fundraising activities

To avoid placing barriers to foraging, and to encourage uptake, Level 1 Tests are intended to be free, or very cheap, at the point of delivery

Geographical Range of a WFAS

As the challenges and issues a WFAS seeks to address span England, Wales, Scotland and Northern Ireland, a UK-wide initiative is preferable. This poses significant challenges as statutory bodies and laws vary between the four nations. Due to an existing body of work around foraging, lower population densities, and sympathetic agencies, a WFAS that applied only to Scotland is likely to be simpler to fund, develop and administer than one covering the whole of the UK. It has been suggested that should a (preferred) UK-wide scheme prove too challenging, a Scottish focussed scheme may work as a pilot for future roll-out.

Finding a Home for a WFAS

One significant challenge to the scheme and its funding is the absence of a clear prospect organisation who might host the scheme during and post-development. For innovative proposals such as this which lie outside the remit of existing organisations or government departments this challenge can be a stumbling block caused by the very nature of the innovation. This challenge should be recognised and addressed early in any further developments work.

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Appendices

Appendix A

Wild Wonders Wild Food Business Training Programme 2019 Final Report (abridged)

Mark Williams (course designer/facilitator/lead tutor), Galloway Wild Foods, November 2019

Note on the report: 11 out of the 12 course participants completed a 10 question anonymous survey to help evaluate the course and measure outcomes. Survey questions and results (referred to in the text as Q1, Q2 etc) are used throughout the report in *italics*, and also in “*quotation marks*” where quoted directly from participant’s written feedback.

1. Selection of Course Participants, Attendance & Commitment

1.1 Candidate Selection

Upon completion of design of the course curriculum, agreement of budget and commissioning of course facilitator, applications for places on the course were invited across a range of media.

The response rate was good, with approximately 75 applications for the 12 places, though around 15 of these were not assessed because they failed to meet the geographical restrictions.

Applications were independently scored according to predefined criteria by MW, Nikki Kenn and a member of the steering group, before compiling the scores and discussing the top 20 applicants with a view to selecting a good blend of business types and a degree of gender balance (3 men to 9 women, reflecting the higher proportion of female applicants).

Applicants who narrowly missed out on selection were kept on a shortlist in case any of the successful applicants pulled out for any or all of the course.

1.2 Attendance

Attendance of, and commitment to, the course was excellent.

From 12 people meeting for 8 training days, plus two delivery days, a total of 120 days, only 2 days training were missed. This represents 98% attendance.

1.3 Commitment: Course Work and Delivery/Payback Days

Small amounts of reading and preparatory work were set prior to most meetings to support the themes of the day. It seemed that some participants completed this more diligently than others.

Participants were asked to submit a report or reflection about some aspect of the Finland trip. 10 of the 12 submitted reports, providing some very interesting and well considered reflections on the trip. A booklet was produced with the blogs and some recipes for the delivery/feedback day (attached).

All course participants put a lot of work into providing excellent free and paid events for the September Wild Food Festival, and were certainly the main reason for its success. This not only paid something back for the course, but helped most course participants enormously in terms developing products, ideas, collaborations and confidence.

Course participants are also committed to running events at the May festival. Involvement in festivals beyond May is discussed below under *Wild Wonders Legacy*.

1.4 Experienced Participants and Knowledge Sharing

During the selection process there was a good deal of discussion around some potential candidates being so experienced in what they were already doing, that it was questionable whether they would gain as much from the course as other less experienced potential candidates.

It was decided to include them on the grounds that they would be able to share their experience with the rest of the group, and be valuable resources within the course.

This proved to be an excellent decision, with more experienced participants imparting valuable knowledge, insight, confidence, and practical experience to the group throughout, and supporting those at different places in the development of their businesses, as well as developing new strands to their own enterprises.

2. Course Format

The course comprised:

- 8 full training days
- 1 x 5 day trip to Finland
- 2 “delivery” days where participants were required to design and provide an activity, comprising:
 - 1 free and 1 or more paid event at the September Wild Food Festival
 - 1 “feedback day” for steering group and invited guests

[For full details of course content please contact Mark Williams mark@gallowaywildfoods.com]

3. Evaluating Course Content

3.1 Visualising and Developing Foraging Enterprises (Q1)

- 8 out of 11 respondents said the course helped them to visualise and develop their foraging enterprise “a great deal”.
- 2 out 11 said it had helped “a lot”.
- 1 said it had helped “a moderate amount”.

“Definitely made me think of the wider options and helped me create a better offer”.

“The course has given me the vision and direction of how to develop foraging in my community. I have now developed connections with a local 'outdoor and community greenspaces' charity to work on how to include edible foods and education programmes into their established networks and new projects”.

“I really developed and refined my business model in the application process alone & eight months into the project, I left full time employment to pursue my [foraging/wild food] business”.

Some have noted that it might take a while to fully digest and apply what they had learned:

“I think the fruits of the learning will be delivered in the coming year - I need to think through the new ideas and inspirations it has engendered and process them over the coming months as I prepare for the next year of business”

3.2 Course Facilitator (Q2)

- 100% of respondents rated the course facilitator as “Excellent”.

“A perfect balance of personal input, handing over to others and including the groups own knowledge. Professional yet, fun and lighthearted. Encouraging participants to trust their skills and helping them grow in confidence where possible”.

“Amazing knowledge, enthusiasm, encouragement and frank discussion of practicalities facing individual businesses”

Personal reflection of Course Facilitator:

It was a pleasure and a privilege to work with all the participants throughout the year. They were cheerful, focused, thoughtful and enthusiastic throughout, and everyone contributed to the friendly, supportive atmosphere that developed. Their wide range of needs and starting points made both designing and delivering the course challenging, and I often felt I wasn't helping all of them as much as I would have liked, so it's a relief to see from the survey that they didn't feel this as keenly as I did!

3.3 Use of Guest Tutors (Q3)

Five guest tutors were used throughout the course. Where guest tutors were used, MW was also present, sometimes delivering alternative content to keep the course relevant to the wide variety of needs among participants.

- All respondents rated guest tutors as either “Good” or “Excellent”.

Although most of the curriculum could have been delivered without the use of guest tutors, they were selected in order that course participants could gain greater variety and depth of knowledge, insight and experience.

“The guest tutors have been on the whole fabulous. I really appreciate Mark's respect of other's expertise and bringing in people who he feels know more than he does on particular subjects has been just another factor in how brilliant this course has been”

Whether this strategy was the best use of budget is worth considering.

“The Course could have been delivered equally well by slightly fewer guest tutors and using more of the expertise of the course facilitator”.

On balance, more course elements might have been delivered by the course facilitator, and it may not have been necessary for the course facilitator to be present for some of the elements delivered by guest tutors. This would have freed up budget to add more course elements or explore subjects more deeply, though a little of the continuity of the course may have been lost without a steady presence to oversee things.

“It was a very educative course and each of the tutors had different expertise around wild products, still my favourite must be Mark as he not only passed on the knowledge but passion as well. Very inspired by him.”

3.4 Use of Support Media

Multiple strands of support media were used throughout the course. They had several intentions:

- To communicate information about the course
- To ask and answer questions around species identification within the group, and between participants and mentor
- To share wider thoughts around foraging, wild food and nano-businesses
- To foster a sense of shared purpose, mutual support and networking among the group
- To facilitate collaboration between participants

3.5 Facebook Secret Group

This was visible and accessible only to participants, with MW and NK as admins. Since going live on 24th March there have been about 170 posts on the group.

Most posts were initiated by course participants, with a small proportion added by MW and NK to stimulate discussion, suggest further reading, and to help administer the course.

Most of MW's input on the FB Group was with regard to answering queries and questions, often around identification.

Most FB posts were viewed by at least 11 course participants, though only about half of participants regularly commented/posted/interacted. This reflects varying levels of interest in spending time on

social media, and it wasn't pushed too hard towards those less inclined, when time might be better spent with books, plants, business plans, promotion etc.

The course included a session on how to best use social media to help promote foraging enterprises, and we also discussed how to best use it (or not) as a tool for learning.

3.6 Whats App Group

This functioned as a discussion thread, with a lighter tone than the FB page. Many thousands of posts made up the discussion threads, comprising a fair amount of discussions around ID, but mostly organisational conversations (such as lift shares etc), chat/banter and mutual support. Whats App seemed to be viewed by most members.

- *A couple of respondents noted that extended or multiple threads in WhatsApp became hard to follow*

3.7 Email

Participants received a monthly email detailing arrangements for the following month's meet up (see appendix C). This email also set homework tasks and made recommendations for reading, videos and podcasts to support the course curriculum. Very little extra email communication between participants and tutor occurred, though it was useful to have this available for private communication if required for, eg. issues between members, personal challenges. The group ended up getting on so well, that there was no need for private communications beyond minor organisational queries.

3.8 Recommended Textbooks, Websites and Social Media

Participants were emailed a basic recommended reading list at the beginning of the course (see appendix **), with some steers on good websites and how to approach using social media as a learning resource. Further reading/viewing/listening recommendations on topics to be explored were circulated prior to meeting days. It was noted in the interim survey/report that it would be useful to receive organisational emails, homework and reading recommendations further in advance of meeting days. This was enacted with mixed success.

As part of the course, all participants received a fungi identification key ("An Initial Guide to the Identification of Fungi") to support the fungi day, which were paid for out of the course budget.

3.9 Participant Feedback on use of Support Media (Q4)

- *90% of course participants rated the support media "very" or "extremely" helpful.*
- *One found it "quite" helpful.*

"[All the support media] in their way have been necessary and we eventually settled into a pattern of knowing which resource was best for which communication/issue. Preparation for each day was excellent."

“Sometimes the variety of platforms got a bit much to follow but most people seemed to keep on top of it - probably just my inability to keep on top of it all!”

“A real 'community feel' has developed, lots of sharing, promoting each other and developing new partnerships”.

3.10 Social Media Legacy

The group wish to continue the FB group and WhatsApp group going forward. MW will hand over admin responsibilities and it will be up to the group to decide how it is managed going forward. One or both of the platforms may, at some point, be opened out to the *wider network* (see below) to extend the benefits of mutual support and shared learning with foraging and wild food businesses across the FVL Leader region.

4. Measuring Course Outcomes

4.1 Collaboration with other FVL Leader area businesses (Q6)

- *10 out of 12 course participants established, or will establish in the next year, new commercial offerings or collaborations with other FVL area businesses/accommodation providers (not including other course participants) as a result of this training.*

“Collaborations and partnerships (delivered & upcoming) with; Hushwing Rangers, The Woodland Trust & DACA - exploring more all the time, Artist/ farmer Kate, Fraser Mckechnie stone mason & poet”.

“Soup Dragon Catering, Tir na nOg, Scotia Spice, Clanscape/Cashel forest, Hushwing Ranger Services.”

“Yes, with a couple of accommodation providers and another activity provider, to provide retreats”.

“I have developed contacts with charities, and community projects in this area, I also have other ideas for future collaborations”.

“Intend to work with West Moss Side farm on events and other various local venues”.

4.2 Collaboration with other Course Participants (Q7)

Perhaps one of the more surprising and pleasing outcomes of the course is the extent to which participants have bonded as a group, and the business ideas and projects that have arisen as a result - often between businesses that might otherwise have considered themselves “rivals” in quite a small market.

- *80% of course participants have already collaborated, or will collaborate at some point in the next year, with other course participants on wild food based enterprises.*

“Monachyle Mhor Hotel would like to incorporate wild wonders in their festival and other activity days throughout the year”

“Four or five possible collaborations have been identified but really need time early 2020 to develop them further”

Course participants intend to work together to help to develop Foraging Fortnight going forward (see below).

Another group led by a few course participants are working on plans to take the Wild Food Festival forward after May (see below).

A community of mutually complimentary and supportive enterprises has seeded, and should grow to be much greater than the sum of its parts in years to come.

4.3 Establishing New Wild Food/Foraging Enterprises (Q8)

- *At the time of this report, 7 of the 12 course attendees have already expanded or started a new wild food business as a result of the course.*

All of the remaining respondents say that they *certainly* (3) or *probably* (1) will in the next year.

4.4 Specific Commitments (Q9)

Participants were asked to list three specific things that they plan to have achieved in relation to foraging elements of their business by the end of May 2020. They are listed below.

- *Have a foraged flavour ready for sale*
- *Delivering more workshops around wild food more competently*
- *Planned programme for the year*
- *Created new business website*
- *Developed new input on existing outdoor charities in WD*
- *Expand the range of wild products on the menu*
- *Expanded my range of wild flavours and developed new ways of incorporating wild flavours into products*
- *Strong culinary identity to my food offering*
- *Delivering & booking in more seasonal foraging walks*
- *Several foraging walks in my local area*
- *Ran foraging walks*
- *Increase in turnover at the start of the year*
- *Engage with 2 local restaurants for sales of a forage flavour*
- *2 collaborations with new businesses*
- *Delivered guiding walks in April*
- *More confidence in planning edible outdoor spaces*
- *Foraging lunches and masterclasses with guided walks*
- *Introduced foraging as an element of my workshop trainings*
- *Confidence in gathering and using range of wild foods*

- *Reaching new groups and partners*
- *Started work on developing 'foraging/wild food for healing' a project*
- *Set up a website*
- *Share information about wild flavours with farm visitors and customers*
- *Programme of activities with other wildwonders*
- *Design multi-event programme for participants*
- *Developed routes and walks in some woodland park areas*
- *Train my staff how to forage and id wild plants*
- *Developed bespoke chocolate products for hotels etc (incorporated flavours from their area into a product they can sell/gift)*
- *Make as stable as possible use of wild food as part of food offering*
- *Running more 'Homemade' workshops to incorporate foraged ingredients into; remedies, personal care products, household cleaners, preserves etc*
- *Planted/established some of my 'teaching/wild patch' in community garden*
- *Planting wild plants for ID teaching purposes*

4.5 Some Thoughts on Individual Outcomes by the Course Facilitator

Charlotte Flower already had a well established luxury chocolate business ([Charlotte Flower Chocolates](#)) that used some wild ingredients, but has reported making three new products already: *"Juniper milk chocolate, Sea buckthorn plain chocolate, and an 'Ode to Autumn' chanterelles, beech nuts and smoked salt - all obviously down to the course!"*. Better still, Charlotte spoke eloquently at the feedback day about how she had reached something of a standstill with her business, but now feels *"inspired and invigorated"* as a result of the course.

Marysia Paskowski was already using a wide range of foraged ingredients in the [Monachyle Mhor](#) Hotel kitchens before embarking on the course. She has reported expanding both her foraged repertoire and the techniques she uses to capture flavours. For example she has now added foraged cocktails to the bar offering at the hotel, and delivered an excellent workshop on that theme at the festival. She is also developing plans to deliver foraged lunches, wild food masterclasses and guided walks at the hotel, some of which she plans to deliver herself, and others she intends to deliver in collaboration with other course participants.

Jim Riach came to the course with a good base knowledge around foraging, bushcraft, and guiding outdoor walks and cycle tours. As a result of the course Jim has expanded the range and quality of his activities, developed an attractive website ([Trossachs Biking and Bushcraft](#)), and done a great job of promoting his guiding enterprise through informative social media.

Nicola Hornsby has wonderfully ambitious plans to make ice cream using the goat's milk from her farm ([Achray Farm](#)), flavoured with wild harvests from around the farm. Nicola had a frustrating year getting her business off the ground, mostly due to the big burdens placed on small businesses by the Food Standards Agency. The support she received from the wider group around these challenges helped her to stay upbeat and positive. Although she is not yet producing ice cream, I feel sure she will get there in the end, at which point the wild inspiration she got throughout the course will come to fruition.

Kate Thornhill came to the course already making some preserves and liqueurs using wild ingredients through her business [Perthshire Preserves](#), and shared her knowledge and insight generously throughout. She learned about a lot of new potential wild ingredients over the year and it will be interesting to see if and how she incorporates these into her already extensive range.

Ruth Glasgow had an interest in connecting foraging with social wellbeing through the social enterprises she was already working with ([The Hub G63](#)). Her eagerness and eye for detail helped move her foraging knowledge forward in leaps and bounds, and she has developed events and collaborations to bring the benefits of foraging to wider audience. Her collaborative approach and organisational skills have placed her at the heart of the ongoing legacy of the project.

Roy Revie soaked up the curriculum and is currently developing his catering/bespoke dining business ([Stonelands Kitchen](#)) around the foraging/wild food skills, techniques and ethics he explored on course. His new website is under construction, and I look forward to seeing wild influences permeating his menus and events as his business develops, though he has reported some short term challenges he needs to overcome.

Rox Madeira's business [Trossachs Wild Apothecary](#) has gone from strength to strength as she has progressed through the course. Rox has developed an appealing range of events based around the health and wellbeing aspects of foraging, and is promoting both her business and wild food/medicine in general through her podcasts.

Sarah Fraser has developed several strands to her wild food enterprises, including [Pick it with Pickles](#) (foraging and preserving workshops), artistic interpretations of wild food, and incorporating "wild" harvests into her garden consultancy business. Going forward she is exploring ways to incorporate these diverse offerings under one marketing banner/website.

Matt Woodthorpe is interested in the more adventurous side of foraging, and is exploring ways to connect what he has learned on the course with his Mountain Leader training. This will embellish and extend the range of activities he can offer, once he has developed an online shop front.

Joanne Dick already had a well established business, [Green Tree Remedies](#). The course has helped her to improve the quality of her existing offering, and develop new strands, such as wild food/medicine walks, mindful wild tea tastings and collaborations with other course participants.

Lauren Lochrie gave up her day job as a result of the course in order to dedicate herself fully to [The Herbal Homestead](#), which draws on what she has learned this year interpreted through her existing interest in sustainable living. Lauren has developed an attractive website full of interesting foraging-focussed events and activities, many in collaboration with other businesses, and reports that all is going well with her venture so far.

4.6 Further Feedback (Q10)

Participants were asked to provide any further thoughts or feedback on the course. All responses are reproduced below, with comment from MW where appropriate.

“The experience has been life changing, the people I’ve met are amazing and the support throughout a challenging year priceless! Still processing what a wonderful opportunity it has been and how lucky I feel to have got on the course! Thanks from the bottom of my heart!!!”

“A fantastic opportunity with a vast amount of experiential learning and networking with people developing businesses with exciting and engaging ideas.”

“Excellent programme, would be good to maintain a collaborative and supportive group going forward.”

“I felt that there was a possibly a bit much time spent on the guiding input, I thought that all the info could have been streamlined possibly. I personally would have benefitted from a firming up ID on some seaweeds, maybe with a quiz or paired tasks or something, maybe this sort of thing for some tricky plant ID also. I liked that there were choices of activities sometimes but at other times felt that I had to pick a serious topic and therefore missed out on a more hands on activity. I think some time could have been set aside in Finland for some good festival and November planning. I loved the whole thing though so that is only ideas and personal preference. The combination of all the people together also helped to make this training possibly one of the most significantly career enhancing to date.”

“I had not expected from this course to meet my new family. it has been great to learn together about wild plants and it boosted my confidence with ID of wild plants. I have learned more about capture of wild flavours and find inspiration to how to preserve and use the produce. it was great that we shared lunch together and everyone put an effort to prepare something with wild plants, that was the best part of it. I have also had a chance to learn new skills (for example how to guide the walk) and I have step out of my comfort zone by doing it. it was fascinating to connect with people who are passionate about wild produce”.

“Thanks to both Nikki and Mark for putting this all together. It has been a delight to be part of it - what I hoped to get out of the course was new knowledge, energy and connections - and you have achieved all this. I have also felt valued and nurtured and that is down to the thought and commitment you have invested in developing this course. Thank you”.

“Thank you ever so much for a most wonderful and fruitful experience. We have achieved so much, yet it it feels like just the beginning!”

“More ID walks would have been good, learning more from Mark on this.”

5. Beyond Measurable Outcomes: The Wild Wonders Legacy

Several outcomes beyond those envisioned in the original brief have come out of the course. Our final day together included a session exploring how course participants could continue to learn together, collaborate and expand their own training beyond the funding period. It should be noted that this legacy owes more to the exceptional group of individuals who got to know one another over the 9 months of the course, and their collective skills and vision, than to the course material itself.

5.1 Ongoing Self-Funded Learning

The 12 course participants are keen to continue to meet on a monthly basis, and have already scheduled a year of monthly meet-ups around foraging and wild food themes that they wish to further explore. These meet-ups will include mutual support/collaborative planning, ideas/skills exchanges, and bringing in some paid specialist tutors. This looks likely to evolve into a self-funded, less intensive continuation of the funded course, possibly offered to an expanded network. MW is donating a small seed fund to help with start-up/organisational costs.

Initially these meet-ups will be organised by, and run for, the 12 course participants, but discussions are underway into how to include what has become known as *The Wider Network*.

5.2 Recognition of The Wider Network

As evidenced by the survey responses, all course participants felt fortunate to have been selected from the large number of applicants, and recognised the benefits of being part of a mutually supportive network. This has evolved into a collective desire to find a way to nurture what has been thoughtfully labelled *The Wider Network* (much nicer than *Failed Applicants!*).

The 12 course participants are exploring ways in which they might reach out to, and integrate the Wider Network into the Wild Wonders Facebook Group, future meet-ups, Foraging Fortnight and The Wild Food Festival. This initiative may be somewhat hampered by GDPR protocols, as the Wider Network weren't asked to give permission for further communications as part of the initial application.

5.3 Foraging Fortnight

Course participants recognise the value of Foraging Fortnight in expanding their own businesses, and to widening the social, economic and environmental benefits of foraging and wild food in general. To this end, they are looking to be actively involved in organising, promoting and participating in annual (or bi-annual) Foraging Fortnights going forward.

5.4 Scottish Wild Food Festival

Using September's Wild Food Festival as a delivery/payback day helped some course participants enormously in terms developing products, ideas, collaborations and confidence. All are busy preparing more events and products to showcase at the May Festival.

On our review day, participants considered the possibility of forming a group to take the festival forward after May. After reviewing budgets, figures and feedback from September, they collectively felt somewhat daunted by the workload and funding deficit that might be involved in taking it on. As a result, it was decided that the group as a whole, while entirely supportive of the festival beyond their May 2020 obligations, did not wish to put themselves forward as a team to carry it forward organisationally.

However, at least two course participants are forming a separate group to develop a proposal for future festivals. They are reaching out to other likely partners and MW has agreed to work with them.

6. Budget

The course ran within budget. Nikki Kenn attended each session and has said that she is happy that what has been delivered more than meets the project brief and training plan. MW is happy that his costings, though not always spot on for every area of expense, balanced out in the end.

Coming in on budget was helped considerably by the use of free venues for training days. Special thanks should go to Marysia and Tom for allowing us use of Monachyle Mhor Hotel; and Rox Madeira and Nicola Hornsby for letting us use their homes, all at no cost.

7. Summary

Delivering the course had its challenges in terms of the scope, ambition, and the wide variety of needs and starting points among the chosen participants.

The wide range of business types and starting points among participants, and the necessary time-lag required to process and implement what course content make it hard to measure the exact outcomes of the course.

Feedback from participants reports a great many positive outcomes with regards to its original goals, and several perhaps less anticipated outcomes in terms of the program legacy.

Hindsight is the best teacher, and were the course to be run again it would almost certainly be easier and cheaper to deliver, and would likely have even more positive outcomes

Desired outcomes of program:

A. More local food businesses (restaurants and food producers) using and promoting wild ingredients, and celebrating 'taste of place' as part of their 'USP'.

The 5 producers and chefs on the course have certainly developed a greater knowledge of the wild ingredients available in the region, and explored techniques and strategies to confidently and sustainably use them.

B. Outdoor activity operators/rangers etc who already had a level of knowledge in wild food should be able to offer attractive foraging activities for visitors and locals.

Dozens of new events and activities have been developed across 7 businesses as a result of the course, drawing on the guiding skills, knowledge base and event design/marketing strands of the course. The quality and marketability of new and improved events should help them to sell out.

C. New collaborations between rural accommodation and educational businesses, food businesses and activity operators around foraging and wild food events.

New foraging/wild food collaborations have been developed between these areas (with the exception of rural accommodation providers, with whom I'm not aware of any new or planned collaborations). Many of these are still evolving, both between course participants, and with other businesses in the region. The Wild Food Festival has been instrumental in exploring these collaborations, developing new offerings, marketing, and building confidence.

D. Program participants able to share knowledge with their European partners and participate in our 'festival' in both 2018/2019

Program participants met and learned from, and shared their own knowledge/insight with Finnish and Latvian program participants over the exchange elements of the course, and provided both paid and free activities for the September 2019 festival. They are committed to providing more for the May 2020 Festival.

The activities on the exchange visit developed by Leader Finland was interesting and useful, but with hindsight, Scottish participants might have gained more by connecting directly with comparable Finnish nano businesses to learn directly from their experience. The Finnish program participants who visited Scotland appeared to comprise a quite different interest groups, with less emphasis on nano businesses, so again, the points of direct connection/learning felt limited.

That the overseas visitors came at the time of the Wild Food Festival made sense, but also restricted the possibilities for interaction between the groups, as the Scottish participants very extremely busy developing, organising, delivering or recovering from their festival contributions.

E. Participants will offer a set number of foraging experiences/new wild food products/wild food menus in 2020. These were agreed as:

- 1. Running at least one activity/special menu/developing a new product for sale, at each of our Wild Food Festivals in September 2019 and May 2020*
- 2. Deliver a minimum of 5 wild food activities as part of your business, or as free opportunities, in 2020. For food businesses this could take the form of new products or a special dinner, or simply including wild food in your recipes on a seasonal basis.*

Obligation E1 was met at the 2019 festival, and plans are progressing well to meet the 2020 part of that too. Measuring part E2 of the obligation will be more difficult. I'd fully expect that 5 x 12 = 60 wild food activities will certainly be delivered in 2020, but these won't be contributed evenly across all participants. That is to say, some may do 10 activities, while others may only do one or two. Some may perhaps do none. The only way to evaluate this would be to run another survey of participants in 2021.

Wild Wonders: Training and Delivery Days - for full details of course curriculum, please contact Mark Williams - mark@gallowaywildfoods.com

Appendix B

Report of the Inaugural Meeting of the Non-Timber Forest Product Network

Held on Thursday 5th September 2019 at 2.00 p.m.
in The Boardroom, Scotland Food and Drink,
1F1 Ratho Park One, 88 Glasgow Road, Newbridge, EH28 8PP

Organiser: Dr Marian Bruce, Director, Highland Boundary Distillery, Alyth, Perthshire
Chair: Russell Willis Taylor, Independent Facilitator
Host: Scotland Food and Drink

Attendees:

Dr Steven Adams, Centre for Wood Science and Technology, Edinburgh Napier University
Dr Steven Asiala, Senior Business Development Coordinator, IBioIC - Industrial Biotechnology Innovation Centre, Inovo, Glasgow
Dr Marian Bruce, Director, Highland Boundary Distillery, Alyth, Perthshire
Georgina Finch, Policy Advisor, Food Standards Scotland
Douglas Halliday, Specialist Timber Advisor, Forestry and Land Scotland
Dr Gregory Kenicer, Botanist, Royal Botanic Garden Edinburgh
Scott Leatham, Policy Officer, Scottish Wildlife Trust
Emma O'Bryen, Business Development Manager, Scottish Distillers Association & Scotland Food and Drink
Alan McDonnell, Conservation Manager, Trees for Life
Elaine McIntyre, Executive Assistant, Highland Boundary Ltd.
Jennifer McLachlan, Director of UK Market Development and Export Strategy, Scotland Food and Drink
Rachel Mirfattahi, Sector Engagement Executive, Food & Drink, INTERFACE
Hannah Mitchell, Port of Leith Distillery
Dr Julia Mitchell, Head of Knowledge Exchange, Impact and Communications, SEFARI Gateway Sector Lead Food and Drink, The Rowett Institute, University of Aberdeen
Josh Roberts MSc MICFor, Forest Industries Advisor, Scottish Forestry
Professor Wendy Russell, Rowett Institute, University of Aberdeen
Professor Cherry Wainwright, Co-Director of the Centre for Natural Products in Health, Robert Gordon University
Mark Williams, Director Galloway Wild Foods, Foraging Teacher and Wild Food Consultant
Russell Willis Taylor, Independent Facilitator

Apologies:

Dr Charles Bestwick, Director SEFARI, The Rowett Institute, University of Aberdeen
Dr Giovanna Bermanno, Director of the Centre for Obesity Research and Education, and Co-director of the Centre for Natural Products in Health, Robert Gordon University
Graham Findlay, Planning Manager East Region, Forestry and Land Scotland
Dr Annie Hill, Associate Professor, International Centre for Brewing and Distilling, Heriot-Watt University
Dr Pietro Iannetta, The James Hutton Institute
Gordon McDougall, Senior Research Scientist, The James Hutton Institute
Simon Montador, Director, Highland Boundary Ltd.
James Withers, CEO Scotland Food and Drink

1. The Purpose of the meeting

A group of academic, private and public sector partner organisations with an interest or remit in non-timber forest products (NTFPs) and/or forestry were invited to discuss scientific research and policy in this area in order to find a way to work

collaboratively to promote and innovate within this key area of the bio-economy, which is currently under-developed in Scotland. For the purposes of this report NTFPs, are categorised as follows:

Wild Food

- Plants - flowers, foliage, fruit, nuts, berries, roots
- Fungi
- Game meat
- Honey

Non-timber Plant Material

- For handicrafts e.g. willow, rushes

Extractive chemicals from plants, fungi, insects, micro-organisms

- Pharmaceuticals
- Nutraceuticals and natural remedies
- Cosmetics & perfumery

2. Background

The meeting was convened by Dr Marian Bruce of Highland Boundary Ltd. whose extensive search for chemical and toxicology data on Scotland's native wild plants for use in innovative distilled spirits manufacturing was frustrated by the fragmentation, obscurity or absence of data in this area. In addition, the lack of consistent or up-to-date government or EU policy or legislation in this area means that access to NTFP resources on government owned land is limited. These issues contribute significant barriers to the development and harvesting of innovative NTFPs by rural businesses and need to be addressed if the full potential of this sector is to be reached.

The most recent estimate (2016) of the total value of NTFPs across Europe's forests is €2.27 billion, which represents around 10% of the value of roundwood¹. This is likely to be an underestimate and does not include added value that such products bring to the hospitality and tourism sectors. Building a strong business-academic-public sector research network that can deliver the research output required to elevate the NTFP sector would enable it to significantly contribute to the 30 billion by 2030 goal of Scotland's Food and Drink sector and help to build new sustainable rural businesses. It is also acknowledged that by creating value in NTFPs that are currently not considered in the value of forestry that this will also incentivise greater planting of native forests across the public and private sector with the accompanying important benefits for climate change mitigation² and biodiversity loss³.

3. A Shared Purpose for the Network

It was agreed that the shared purpose of the network was to:

- review and collate current scientific research and assist in the interrogation of data
- identify gaps in research data and work towards filling these gaps
- promote the development of novel NTFPs
- work with industry partners to create fulfil bespoke research projects
- promote safety in the use of NTFP and novel foods
- review NTFP policy and legislation
- recruit other stakeholders to the network

4. Key Issues

Collating Existing Databases

A number of databases on Scotland's native flora have been compiled over many years by researchers in the Institutions represented in the network. Data includes phylogenetic and ethnobotanical information, toxicology data, chemical constituents and bio-active substances. However, network members admitted that much data remained unpublished and even where databases are hosted on publicly available websites many are difficult to find with search engines and are complex to interrogate. It was acknowledged that innovation was reliant on such research data and that in order for the sector to grow this information should be available centrally, made easily accessible and that help with interrogation of databases was required. It was agreed to take a systems-based approach to ensure no duplication of effort. As a first step in collating such data network members volunteered a list of existing relevant databases (Table 1).

Funding and Operational Opportunities for the Network

Opportunities for funding the collaborative work of the network was discussed (Table 2). Much of the environmental and agro-forestry research undertaken in Scotland is funded by the Scottish Government Strategic Research Programme which runs via the Rural and Environment Science and Analytical Services (RESAS) has three interlinked three interlinked themes all of which are fully congruent with research into NTFPs:

- 'Natural Assets'
- 'Productive and Sustainable Land Management and Rural Economies'
- 'Food, Health and Wellbeing'

Funding is allocated and carried out via the Scottish Environment, Food and Agriculture Research Institutes (SEFARI: Biomathematics and Statistics Scotland, The James Hutton Institute, Moredun Research Institute, The Rowett Institute, Royal Botanic Garden Edinburgh, Scotland's Rural College). The current 5-year funding cycle, which already includes some research on NTFPs, finishes in 2020 and it was agreed that NTFP Network could form a focus within the next Strategic Research Programme through SEFARI Gateway, the knowledge exchange and impact hub for SEFARI. It was generally agreed that inviting stakeholders from other sectors into the network will be beneficial. Inclusion of landowners, SNH and other 3rd sector organisations would open up "Think Tank" funding opportunities.

Table 1 List of existing NTFP databases, their host Institutes and other resources relevant to NTFP research.

Institution/Organisation	Resource
Royal Botanic Gardens Edinburgh	Database containing a body of work at thesis level (6.5K extracts) Databases on the ethnobotanic/historical uses of plants
Centre for Wood Science & Technology , Edinburgh Napier University	IBioIC Report on Scottish Tree Extractives http://ited.iidi.org.uk
Robert Gordon University	RGU Tree Bioactives Database (not currently available online)
Rowett Institute, University of Aberdeen	Collating info & building databases for a range of food products from underutilized species (publicly available).
Kew Gardens	Plant and Fungi databases – taxonomy, medicinal uses https://www.kew.org/science/collections-and-resources/data-and-digital/see-all-kew-data-resources

Food Standards Scotland	<p>EU Novel Food Catalogue https://ec.europa.eu/food/safety/novel_food/catalogue_en</p> <p>Belfrit – History of consumption http://www.afsca.be/home-en/</p> <p>German plant list Netox plant list (medicinal properties) publicly available</p>
Foraging Associations PFAF: Plants for the future Scottish Wild Harvest Association (Facebook Group) Association of Foragers	<p>https://www.reforestingscotland.org/publications/books/a-handbook-of-scotlands-wild-harvests/</p> <p>https://www.foragers-association.org.uk/members</p>
Steve Asiala, IBioIC	Bio Res Mapping Tool with various streams: where they are, what they are, composition i.e. Strawberries – composed of sugar.
Forest Research	https://www.forestresearch.gov.uk/research/wild-harvests-from-scottish-woodlands-social-cultural-and-economic-values-of-contemporary-non-timber-forest-products/

Table 2 Funding opportunities for the network to explore further

Organisation	Opportunity	Notes
Scottish Enterprise	Funding	
Highlands & Islands Enterprise	Funding	
Forestry & Land Scotland	Funding	Receptive to well-presented business cases
BBSRC NIBB Networks in Industrial Biotechnology and Bioenergy	Funding	
Scotland's Natural Larder	Funding http://scotlandsnaturallarder.org/	Foraging now on their agenda
*SEFARI Gateway	Think Tanks Responsive Opportunity Funds Fellowship Funding	
**Plant Science Circular Economy Investment Fund	Funding	20K funding for a small project

* Examples of funding including Think Tanks, Responsive Opportunity Funds and Fellowship Funding which facilitates the work of SEFARI scientists but co-constructed pieces of work with key partners. SEFARI is currently in their 3rd year of a 5-year cycle.

**No barrier to entry with NTFP, opportunities at every scale.

5. Policy & Practice – Suggestions and Considerations

Licensing

Securing commercial foraging licenses is difficult as little precedence for such arrangements exist within Scotland either within the National Forest Estate or with Private Landowners. Highland Boundary Distillery is one of only a handful of companies granted a Scottish foraging licence, however lack of knowledge from government agencies about NTFP is creating barriers and negotiating new licences is difficult. The forestry industry is currently almost exclusively timber focused and NTFPs are frequently overlooked as potential revenue streams from maturing forests.

The Finnish Model

The Government public health agenda in Finland promotes public foraging including everyman rights and public health campaigns (fungi forecasts). Commercial foraging allowed and all NTFPs are tax free. Large areas of Scotland are directly comparable to Finland, we should consider the Finnish Model as a way forward for Scotland.

Wild Plants Eaten Safely

The importance of bringing together traditional medicine/indigenous practitioners with scientific evidence i.e. lay evidence needs to be backed up with scientific evidence. If we can provide an exemplar at national level can take that to a global level.

Other considerations

Public Health Benefits are enormous, food miles, social, education, cultural change (it's all our food)

Be conscious of public perception. We should focus on growth rather than harvesting, establishing a need for something, with an emphasis on sustainability. Public and commercial interest in wild, foraged and sustainably sourced food is rising. The first "Wild Food Festival" was held in Scotland in September 2019⁴.

Plant Protection

Protection of rare species and habitats needs to be considered in any promotion of the gathering of wild food. Advice about sustainable levels of harvesting both for individuals and businesses needs to be discussed to avoid over picking – guidelines may vary for each different species and habitat.

Many species in Scotland's forests are at risk of lethal infectious diseases which could be spread by movement of commercial harvesters from forest to forest. Advice must be taken from Forestry and Land Scotland and Scottish Forestry in regard to prevention of the spread of such diseases.

Resource implications

The project is an enormous undertaking, it's got to be fundable and reach the right stakeholders. A new database needs an enquiry system not just a database to be able to generate new information (data mining). Potential problems with funding a new database. The NTFP network is 3rd sector focused and to get the attention from SE & HI it needs to be industry led. Arguably, this *will* be industry led: a whole industry of small gin/spirit producers sprang from one piece of HMRC legislation, two of those producers form part of this network. Current and potential small businesses with the forest on their doorstep are being held back by lack of data, research and policy which makes this 'mainstream'.

NTFP Network Strengths

Despite past struggles with government buy in, it was generally agreed that with a focussed network, good structure and committed people there should be a renewed effort to approach Scottish Enterprise & Highlands and Islands Enterprise.

The goals of the NTFP network fit in with the central definition of Scottish Forestry's success and their next goal is £2 billion by 2030 and they want NTFP to be big enough to register on the next report ⁵.

All present agreed that the network would be a broad partnership, we need a person or persons to take this forward and we need funding. Having this consortium/network makes us more accessible to business and industry and in turn makes funding landscape more accessible.

6. Next Steps

- Language and branding of the network is still to be decided
- Admission that a secretariat would be required to take on the administration of the network as individual stakeholders do not have resources to undertake this
- Some discussion about who will benefit from this project (small scale niche producers v huge scale commercial), however it was agreed we can proceed without deciding the 'for whom' for now
- Marian Bruce to take the content of the agreed word cloud from the meeting and draft a statement which conveys that as a group we're agreed that we are willing to work together to bring realise the potential of the NTFP sector – draft below

Non-Timber Forest Product Network Mission Statement

The Scottish Non-timber Forest Product Network is a collaborative partnership of academic, business, third-sector and government organisations who are committed to working together to realise the full potential of under-utilised non-timber resources in Scotland's forests. By fostering research and innovation in non-timber forest products the network will support a sustainable bio-economy in order to generate positive impacts for Scotland's unique biodiversity, public health and the rural economy.

7. References

1. Research carried out under the StarTree project "Multipurpose trees and non-wood forest products, a challenge and an opportunity." This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 311919 www.star-tree.eu
2. The UK Contribution to Stop Global Warming, The Committee on Climate Change.
<https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>
3. UNFAO The State of the World's Biodiversity for Food and Agriculture (BFA) Report 2019

Full Report <http://www.fao.org/3/CA3129EN/ca3129en.pdf>
Summary Report <http://www.fao.org/3/CA3229EN/CA3229EN.pdf>
News Story <https://news.un.org/en/story/2019/02/1033331>
4. <https://www.foragingfortnight.co.uk/scottish-wild-food-festival/>
5. Roots for Further Growth - An Economic Strategy for Scotland's Forest and Timber Technologies Sector to 2030.
<http://www.forestryscotland.com/media/390514/roots%20for%20further%20growth%20-%20november%202018.pdf>

Appendix C

How Foraging Fits Into Scottish Primary Education Curriculum for Excellence

Amy Rankine 2017

Association of Foragers

MSc Gastronomy

PGCE

BSc Food Science & Technology

Primary students gain the opportunity to work towards the following level 1 & 2 outcomes working with an experienced tutor. The following areas are identified as key areas of the Curriculum for Excellence that are supported by foraging education.

Social Wellbeing

- Representing my class, school and/or wider community encourages my self-worth and confidence and allows me to contribute to and participate in society. HWB 1-12a / HWB 2-12a
- I value the opportunities I am given to make friends and be part of a group in a range of situations. HWB 1-14a / HWB 2-14a

Physical Wellbeing

- I am learning to assess and manage risk, to protect myself and others, and to reduce the potential for harm when possible. HWB 1-16a / HWB 2-16a

Food & Health

Nutrition

- I enjoy eating a diversity of foods in a range of social situations. HWB 1-29a / HWB 2-29a
- I experience a sense of enjoyment and achievement when preparing simple healthy foods and drinks. HWB 1-30b

Food & The Consumer

- When preparing and cooking a variety of foods, I am becoming aware of the journeys which foods make from source to consumer, their seasonality, their local availability and their sustainability. HWB 1-35a / HWB 2-35a

Science

Planet Earth

Biodiversity and interdependence

- I can distinguish between living and non-living things. I can sort living things into groups and explain my decisions. SCN 1-01a
- I can identify and classify examples of living things, past and present, to help me appreciate their diversity. I can relate physical and behavioural characteristics to their survival or extinction. SCN 2-01a
- I can explore examples of food chains and show an appreciation of how animals and plants depend on each other for food. SCN 1-02a
- I can use my knowledge of the interactions and energy flow between plants and animals in ecosystems, food chains and webs. I have contributed to the design or conservation of a wildlife area. SCN 2-02a

- Through carrying out practical activities and investigations, I can show how plants have benefited society. SCN 2-02b

Biological Systems

Inheritance

- By comparing generations of families of humans, plants and animals, I can begin to understand how characteristics are inherited. SCN 1-14a
- By investigating the lifecycles of plants and animals, I can recognise the different stages of their development. SCN 2-14a

Social Studies

People, Place & Environment

- I can consider ways of looking after my school or community and can encourage others to care for their environment. SOC 1-08a
- I can discuss the environmental impact of human activity and suggest ways in which we can live in a more environmentally responsible way. SOC 2-08a
- By exploring a natural environment different from my own, I can discover how the physical features influence the variety of living things. SOC 1-13b

Food and Textiles Contexts for Developing Technological Skills and Knowledge

- I experience a sense of enjoyment and achievement when preparing simple healthy foods and drinks. HWB 1-30b
- When preparing and cooking a variety of foods, I am becoming aware of the journeys which foods make from source to consumer, their seasonality, their local availability and their sustainability. HWB 1-35a / HWB 2-35a

This is a fantastic opportunity for students to become more involved in nature and to take learning out of the classroom. The course allows for kinesthetic, auditory and visual learners, ensuring opportunity for all.

Appendix D

Wild Food Accreditation Scheme Scoping Work Brief, March 2021

(Compiled by Mark Willimas (AoF) & Becky Shaw (NatureScot))

Outlines of Work to be Undertaken

Task 1: Write a Level 1 Species Test, including Curriculum, Feedback and Evaluation

Applications from AoF members to write one or more tests will be assessed by the AoF Committee. Selected test writers will be responsible for writing, absorbing feedback, and reviewing tests and delivering them in agreed format with appropriate reference material to the satisfaction of the test coordinator and committee. The tests must be written as per the guidelines laid out in this document: [WFAS Information for Test Developers](#)

The species selected for the 12 tests are based on discussions with the funder and selected to explore the parameters and challenges of writing L1 Tests. The species are:

- Nettles - *Urtica spp*
- Wild garlic - *Allium ursinum*
- Wild leeks - *Allium triquetrum/paradoxum*
- Common Sorrel - *Rumex acetosa*
- Sea kale - *Crambe maritima*
- Sea beet - *Beta vulgaris*
- Meadowsweet - *Filipendula ulmaria*
- Blaeberry/Bilberry - *Vaccinium myrtillus*
- Penny bun - *Boletus edulis*
- Chanterelle - *Cantharellus cibarius*
- Pepper dulse - *Osmundea pinnatifida*
- Laver - *Porphyra spp*

The process requires evaluation/feedback of a test from a second party, and from the Test Coordinator. The way this works is test developers will be paired up with other test developers, and exchange their draft tests, receive feedback, then improve them if necessary. This process will be overseen and supported by the Test Coordinator (see below).

Task 2: Test Coordinator

The test coordinator's role is to:

- Oversee, coordinate, support, document and ensure the timely completion of the test writing and review process
- Work with test writers to ensure tests are complete, fully referenced, accredited and in the correct format to be shared with other stakeholders
- Report to the committee on the progress of the test writing and review process

The role requires good technical, interpersonal and organisational skills, and the ability to communicate clearly and efficiently with test developers and the AoF Committee.

You should have read and understood the [WFAS Information for Test Developers](#) document.

You should be adept with Google Docs and Google Sheets.

Project Development Tasks

5 pieces of work:

(Nature Scotland has requested that some of these tasks also be advertised to non AoF members with appropriate skills and experience).

Task 3: Research, Identify and Report on the most appropriate accreditation structure for the WFAS

You will research and produce a report on possible accreditation models for the WFAS, with recommendations for the best way forward. This should include a brief review of comparable accreditation models, their strengths/weaknesses and estimated costs.

Task 4: Research, identify and report on the most appropriate online delivery platform for Level 1 Tests

You will research and produce a report on online test delivery models that might be appropriate for delivering Level 1 WFAS Tests, and make recommendations for the best model with costing estimates. Some technical insight into online platforms would help with this task.

Task 5a: Research, identify, approach and report on an appropriate steering group to oversee the future development of the WFAS - Scotland

Task 5b: Research, identify, approach and report on an appropriate steering group to oversee the future development of the WFAS - England

You will research, identify and produce a written report on appropriate organisations, stakeholders and individuals to partner the AoF in delivering the WFAS. Working closely with the AoF committee, you may also informally and/or formally contact individuals within potential stakeholder groups including, but not restricted to the following:

- Natural England
- Food Standards Agency
- Reforesting Scotland
- Scotland Food and Drink (and English equivalent?)
- Forestry Scotland

- Forestry England
- British Mycological Society
- Fungi Scotland
- Botanical Society of Britain and Ireland
- Forest School Association
- Scottish Association for Marine Science (and English/UK equivalent?)
- Physical/Mental Health Professionals
- Craft Guild of Chefs

You will compile brief outlines and contact details for individuals who can speak for these stakeholders and interest groups.

This role requires a good grasp of, and enthusiasm for, the WFAS as it currently stands, as well as excellent networking and communication skills, and the ability to explore a sense of shared purpose among potential stakeholders.

Task 6: Project Report (This Report)

This task will run in the final week of March and draw on the findings of the other Project Development Tasks. It requires critical and strategic thinking as well as synthesis and report writing skills. It will draw together the multiple strands of Tasks 3, 4 and 5 and identify a clear route forward based on their findings. It will also identify potential challenges as well as partners and funding sources to bring the project to fruition.

Appendix E

Developing a Wild Food Accreditation Scheme

Susanne Masters

Member of the Association of Foragers
PhD candidate at Naturalis Biodiversity Center,
MSc Ethnobotany
IUCN Species Survival Commission Medicinal Plant Specialist Group
IUCN Species Survival Commission Orchid Specialist Group
Grant reviewer for the Conservation Leadership Programme

25th March 2021

1. Antecedents
2. Essential Criteria
 - Consumer confidence
 - Responsiveness to change
 - Accessibility
3. Legislation
4. Schemes accrediting products and companies
5. Schemes accrediting individuals
 - Time commitment comparison
 - Cost comparison
6. Components to integrate into WFAS
 - Knowledge to be tested
 - General points to note
 - Stakeholders
 - Structural components
 - Tangible components
7. Possible model
8. Proceeding steps

1. Antecedents

Interest in foraging and consuming foraged products is increasing. Notable influences include pandemic-driven desire for food sovereignty via knowledge of wild foods, use of foraged ingredients in marketing of commercial products as a signifier of brand identity and connection to terroir, and increasing recognition of agriculture as a significant polluter of natural ecosystems. In particular the strong growth in the rewilding movement incorporates a push to develop the use of NTFPs (Non-Timber Forest Products) as an alternative to agricultural products.

Accompanying interest in foraged products are reports of problems with ingredient supply and recommendations, in particular in terms of unsustainable harvest and risk to public health. Publicly documented examples include:

- death of a participant on a survivalism course in France following consumption of hemlock water dropwort (*Oenanthe crocata*) (2020)
- post publication withdrawal by publisher of a book written by an Instagram influencer 'Tales from a Forager's Kitchen', due to toxic recipes being included (2018)

- publication of a recipe written by a chef including henbane (*Hyoscyamus niger*) in Health and Organic Living Magazine (2008)

Members of the Association of Foragers also report intervening in cases where there has been risk to members of the public or threat to wild species, examples include:

- a plant considered likely to be carcinogenic and for which there are no reports of edibility was included in a commercially available distilled spirit
- one of Britain's endemic plants was included in a proposed distilled spirit
- a published article directed readers to eat raw watercress (*Nasturtium officinale*) without warning of the risks of liver fluke

Developing an accreditation scheme is of interest to all stakeholders from the perspective of both public safety and sustainable use of natural resources.

2. Essential Criteria

Consumer confidence

Foraging in commercial settings—ranging across restaurant supply, teaching individuals to wild harvest, consultation on wild ingredient selection etc.—places consumers in a position of needing confidence in their forager. Although consumers are not equipped with objective knowledge of elements their teacher or supplier should be meeting. Essential criteria for foraged materials and teaching about them are being suitable for purpose, free of contamination, and sustainably and legally collected.

Responsiveness to change

An accreditation scheme validating responsible natural resource use must support continuing personal development of professionals or provide a check that skills are up to date, because species abundance and distributions are dynamic. For example, Rosebay willowherb (*Chamerion angustifolium*) was an uncommon woodland plant in the 18th century, due to landscape changes it is now commonly seen in a variety of locations. In contrast some upland species are being pushed towards the limits of their habitat by climate change.

Accessibility

Foraging, in common with other pursuits predominantly followed in rural places, has low diversity. In the 2020 Association of Foragers (AoF) members' survey answered by 40 out of 100 members over 70% identified as Caucasian, and no members identified as Black, Latinx, or Asian. In 2018 '*Investigating use of the outdoors across adult population groups in Scotland*', a report conducted by the Hutton Institute, found that the population groups least likely to use the outdoors on a weekly basis were people with a disability, Muslims, residents in Scotland's most deprived areas, Black and other non-white minority ethnic groups and people aged 76 and over. The UK government's 2011 '*Natural Environment*' White Paper found that opportunity to benefit from spending time in natural environments was not open to everyone. And a 2017 report '*Visits to the natural environment*'

found that out of all ethnic groups white people were the most likely to have visited the natural environment.

Any accreditation scheme needs an easy to access entryway to facilitate skills development and progress by under-represented groups. Additionally, proxies for knowledge should be carefully selected to ensure that they do not amplify ethnicity and socio-economic background but validate and recognise skills and knowledge of individuals.

3. Legislation

Legislation and its implementation are relied on for protecting consumer and employee safety, and for aspects of environmental protection. Within the UK The Wildlife and Countryside Act (1981) is the main framework, within which in Schedule 8 some rare species are subject to additional restrictions and in Schedule 9 introduced species considered to have negative impact on native fauna and flora are subject to controls. This act also enshrines the power of the landowner in access to natural resources. Local byelaws as well as ethical and legal considerations limit foraging in nature reserves. Developing accreditation that gives gatekeeping entities confidence in the ability of the accredited individual to harvest sustainably would help to support natural resource access on a more egalitarian basis, rather than the current model that is skewed in favour of private landowners. Currently in England and Wales wealth provides greater access to natural resources than ability to make harvesting decisions based on principles of conservation and sustainable use.

4. Schemes accrediting products and companies

Consumer consideration of products and businesses in terms of sustainability is increasingly supported by accreditation schemes. Michelin Guide has now introduced a green star, denoting sustainable business practice that preserves and protects natural resources as manifested in specific actions such as reducing food waste and using local ingredients. As a notable proportion of foragers supply restaurants with ingredients there is desirability in a foraging accreditation not only to provide confidence in supplied products that are fit for consumption (as required by Food Standards legislation), but also that ingredients are sustainably wild harvested.

Another international marker of sustainable collection practices is FairWild accreditation, or subscription to FairWild standard. In recognising the importance of wild harvesting to livelihoods and the need for species to endure as wild populations the FairWild accreditation and standard provides a tool for businesses to manage their supply chains and for suppliers to be guided and validated in their practice.

With the UK government's Sustainable Development Management plan and increasing recognition of industrial agriculture as a polluting industry there is impetus for supporting recognition of sustainable foraging.

5. Schemes accrediting individuals

Within the UK several schemes operate that accredit individuals on aspects of foraging, and on identification and analysis of wild species presence, distribution, and abundance. However, there is not an accreditation scheme that brings together all the critical elements.

Identification Qualification (IdQ) was established by the Natural History Museum in 1993. A rigorous written exam and sample identification test were the means of establishing competence in species identification. Qualification was in specific subject areas taken as separate exams: freshwater algae, aquatic macrophytes, vascular plants, freshwater macroinvertebrates etc. At the present time this scheme is inactive. However, while operating it was considered to certify expertise to a high standard and was recognised by practitioners outside of the Natural History Museum. Although there were no specified prerequisites for sitting the exam potential candidates were aware that in order to pass they would need to have accrued knowledge over several years.

Manchester Metropolitan University offers a Postgraduate Certificate in Biological Recording. As such, an undergraduate degree is a prerequisite for joining the course. Assessment occurs on the basis of coursework through the two years of part-time study. This accreditation's high cost is generated by two years of tuition fees plus expense of required fieldwork sessions. Previously this qualification was awarded by the University of Birmingham. Collaboration between the Field Studies Council and awarding bodies may have contributed to ensuring persistence of accreditation despite transition between awarding bodies.

The Botanical Society of Britain and Ireland's (BSBI) Field Skills Identification Certificate (FISC) was developed to test field competence, which was not assessed by other schemes at the time. Initially discussed and shaped as a skills pyramid at a British Ecological Society (BES) conference in 1996 and launched at a BES workshop in 2001 its development was propelled by a grant from the BSBI to trial the assessment process. A ten-year review was carried out in 2017 involving stakeholders of the scheme: candidates assessed, assessment providers, ecological consultancies (who recognise the certificate, many of whom encourage staff to take the test), and government organisations.

Foraging and Wilderness Cookery is an NCFE Customised Qualification, only offered by Survival School, a bushcraft and foraging business. As such it is unregulated, and attendance is the requirement for being awarded a certificate. In addition to showing participants useful plants and how to prepare them legislation relevant to foraging is highlighted.

Similarly, Environmental Survival Training (EST) Foraging Courses offered by Original Outdoors, a bushcraft and foraging business cover useful species and relevant legislation. Attendance is sufficient for Level 1 and 2. Level 3 involves assessment. It is offered within the EST framework developed by Original Outdoors.

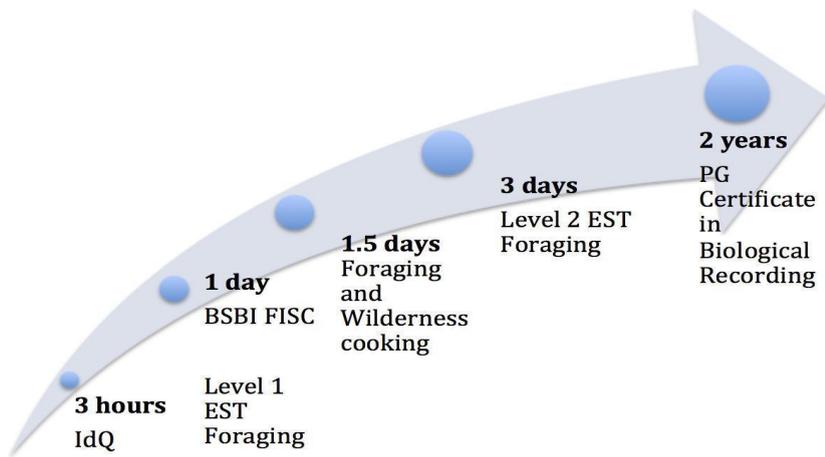
Both IdQ and BSBI FISC separate learning from evaluation. Using a field setting in the BSBI FISC taps into knowledge and expertise acquired over time, rather than short-term memorisation. Schemes involving stakeholders in development, assessment, and on-going evaluation - IdQ, BSBI FISC, PG Certificate in Biological Recording - achieve wider recognition of their accreditation.

For participants alongside recognition of the accreditation, time input required for evaluation and cost of accreditation are relevant factors. BSBI FISC is economical in both time commitment required for accreditation and cost. A table and figure below summarise details and constraints of existing foraging accreditation schemes in the UK.

Table Showing a Summary of Existing Foraging Accreditation Schemes within the UK

Name of scheme	Aims	Knowledge Evaluated	Method of Assessment	Proof of Accreditation	Assessed by	Awarding body	Levels	Stakeholder advisory body and facilitators	Learning and evaluation separate
IdQ	Accreditation of expertise for professionals working in environmental monitoring, impact assessment, and conservation	Species identification	3 hour examination written questions of constructs (e.g. morphology) and identification of fresh samples	Certificate	NHM staff (national and international authorities on species identification)	Natural History Museum	90% pass 70- 90% intermediate < 70% fail	Industry, ecology consultancies, universities, NGOs	Yes
Postgraduate Certificate in Biological Recording	Learning and accreditation of field based ecological skills	Species identification, creating biological records, analytical skills	Coursework over 2 years	Certificate	University staff	Manchester Metropolitan University	fail, pass, merit, distinction	Field Studies Council	No
BSBI FISC	Evaluate field identification skills	Botanical identification. Long-term ability, not short-term memorisation	Samples identification session and field survey, over one day	Certificate	Botanical experts drawn from stake holders	Botanical Society of Britain and Ireland	7 from basic identification to degrees of expertise	Kent Wildlife Field Studies Council Natural England	Yes
Foraging and Wilderness Cookery CQ	Introduction to edible, medicinal, poisonous plants	No	Attendance	Certificate	Survival School (foraging/bush craft business)	NCFE N.B is Customised Qualification, which is unregulated	No	No	No
EST Foraging Courses	Identification, legal issues, environmental hazards in different settings (inland, coastal) and for different focuses (fungi, camp cooking)	Not at level 1 (basic) & 2 (practitioner) Yes at level 3 (guide)	Attendance For level 3 course tutor evaluation	No	Original Outdoors (foraging/bush craft business)	Original Outdoors under EST (Environmental Survival Training) Framework they developed	1, 2, 3	No	No

A: Time commitment comparison



B: Cost comparison

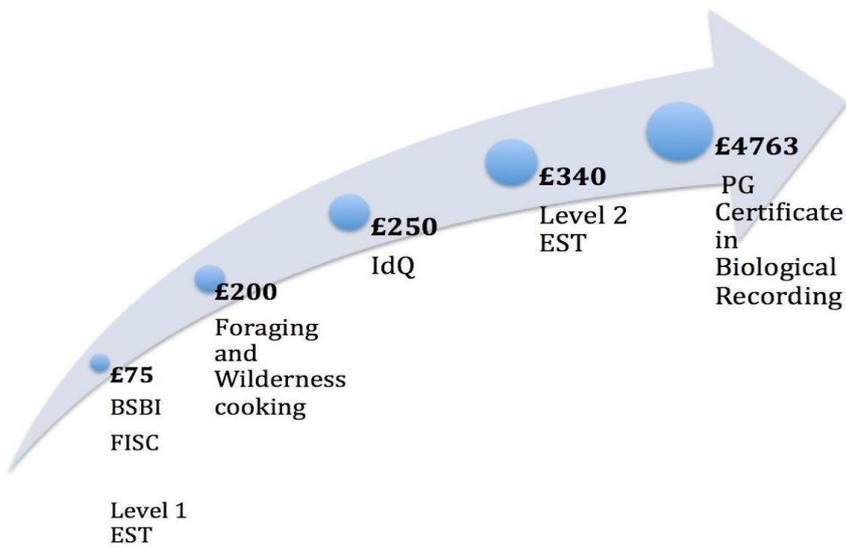
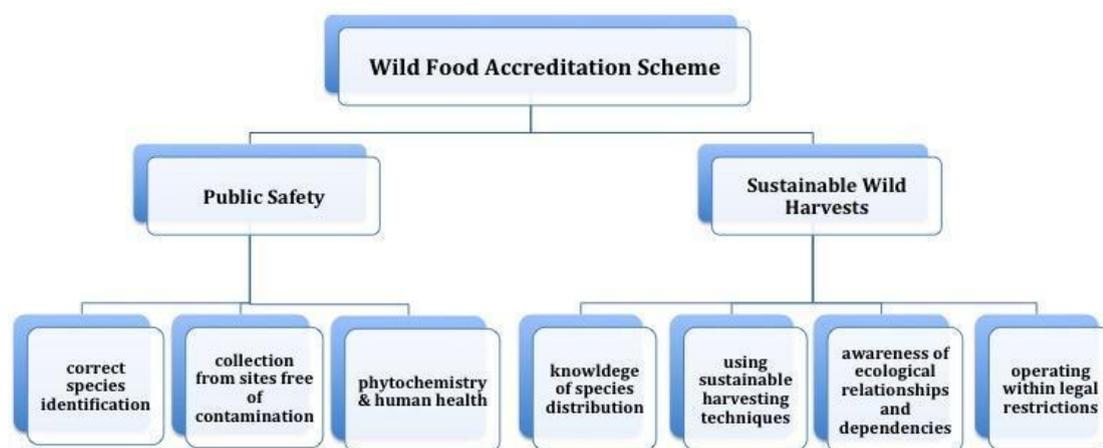


Figure showing A: Time and B: Cost Comparisons for Existing Foraging Accreditation Schemes within the UK

6. Components to integrate into WFAS

Knowledge to be tested

Underneath two core elements of public safety and sustainable wild harvesting there are specific areas of knowledge that tests need to target in order to provide accreditation. A brief overview of this, which should be developed with generation of specific questions is included below.



General points to note

Attaching accreditation to learning restricts diversity of foraging practitioners by limiting the routes that people can follow to be accredited as experts. While many people do acquire knowledge about foraging from book learning, online sources, and attending courses, people also gain sophisticated knowledge about wildlife and foraging from family and friends, and also their experiences interacting with wild environments and wild species. In particular people who have spent years learning from family, friends, and their own observations of nature can be holders of particularly deep and layered knowledge. It would be a mistake to create an accreditation system that forces people to pay for learning experiences that they do not need. The value of diverse learning routes must be recognised by the scheme.

Placing accreditation in the hands of a private business or enterprise, which is driven to pursue profit, adds additional cost for people seeking accreditation. It is preferable to place accreditation within the auspices of an NGO or non-profit organisation or government body.

It is more important that accreditation is recognised by stakeholders than that it fits into existing government or learning institute grades of learning. For example, it is not useful for an individual to be given accreditation and told it is equivalent to A or AS level, if the accredited status is not valued by organisations that act as gatekeepers on natural resources or maintain public health and safety standards.

Stakeholders

While the Association of Foragers (AoF) is committed to developing accreditation that supports safe and sustainable natural resource the AoF acknowledges other organisations that operate within this arena and welcomes their participation. Engagement with stakeholders strengthens both recognition of accreditation and resilience of the scheme to changes in individual organisations. In addition to connecting with an accrediting organisation—University, professional association, government body etc.—stakeholders with existing commitment to and engagement with wildlife, its conservation, access to and use of it, or other aspects that shape or are influenced by foraging should also be consulted. Alongside the Association of Foragers there are potential stakeholders with interest invested in safe and sustainable foraging practices, and who have expertise that would usefully inform the accreditation process and content examined by accreditation.

Areas of knowledge that underpin foraging accreditation	Discipline	Examples of organisations with expertise
Correct identification of species	Taxonomy	Association of Foragers British Ecological Society Botanical Society of Britain and Ireland
Ecological knowledge of species	Ecology	Association of Foragers British Ecological Society Botanical Society of Britain and Ireland
Knowledge of edibility of species	Ethnobiology	Association of Foragers – International Society for Ethnobiology Society for Economic Botany
Sustainable harvesting techniques	Conservation	Association of Foragers British Ecological Society Botanical Society of Britain and Ireland International Union for the Conservation of Nature Specialist Groups (e.g. medicinal plants) Natural England NatureScot

Legislative constraints and requirements	Food safety	Association of Foragers Environmental Health Food Standards Agency
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Structural components

An entry-level certificate or acknowledgment of skills that can be obtained by people who may not have the expertise required for commercial foraging, but could be encouraged and supported in developing.

Higher level assessment drawing on expertise and knowledge of more than one assessor

Annual stakeholder meeting to include review of public health and conservation data updates that need to be reflected in Level 1 and 2 tests and accompanying information—for example research on heavy metal content of shore harvesting of bivalves, or recent population decline in edible species

Feedback mechanism to update accredited individuals on changes to best practice that may arise due to the dynamic state of species and their environments e.g. novel species introductions, spread of disease in wildlife, advances in knowledge of toxicity, edibility, environmental contamination.

Tangible components

Level 1 tests and accompanying learning resources should have a date stating when test and guidance were last updated.

Accreditation verified by certificate issued to individual that is authenticated by the awarding body.

Field test for higher level.

Quantifiable test procedure for the higher level field test i.e. agreed replicable means of scoring and evaluating participants.

7. Possible model

Level 1 – entry level evaluation on individual species

Consisting of sets of multiple-choice questions tied to individual species, which can be wild harvested these tests could be done as individual units. Being offered online in a format that can be automatically graded would minimise admin and evaluation costs. For participants online testing would offer flexibility in time and location of completing tests. Being online (open book) it would not be a formal accreditation of knowledge, rather an encouraging entryway and a means for participants to gauge their knowledge in relation to the concepts to be examined in the higher level test.

Level 2 – competence to supply or guide people in accessing foraged resources

Level 2 could use a prerequisite of a specified number of level 1 species tests. Participants should be provided with a brief in advance telling them what will be assessed in level 2 via field assessment: accurate identification of species, awareness of sources of environmental contamination, sustainable

harvesting techniques, legal constraints on wild harvesting, and relevant safety standards in supplying ingredients.

As a field test level 2 could invite participants to a selected site. Once there they would survey the site and list useful species, with notes on any safety or legal considerations e.g. need to obtain landowner's permission to harvest roots, species that could host liver fluke etc. They should also note areas where they would need further information in order to make an informed decision e.g. water quality reports. Assessors would carry out this survey in advance of the test, and create a benchmark using their pooled answers.

Participants should then collect small samples of an agreed number of species and in the field or in a resource centre show how they prepare them—parts discarded, cleaning etc.— and write down HACCP considerations.

Samples of species that should be recognised, such as hemlock water dropwort (*Oenanthe crocata*) could be provided if not on site. These could be used to test that participants are able to correctly identify them or are aware of the limitations of their knowledge and state that they cannot identify them.

Level 3 – Assessor

Recruitment or delegation to individuals that stakeholders agree possess the necessary expertise to evaluate level 2. Relying on at least two, possibly more, assessors who represent the interests of different stakeholders would allow the certification to draw on expertise from different areas that need to be evaluated. Initially assessors would not be accredited, though after initial pilot assessors should become accredited to level 2. Thereafter stakeholders should discuss whether development of an accredited level 3 for assessors is necessary.

8. Proceeding steps

- Create stakeholder advisory group
- Secure funding, work hours, and or resource commitment in order to develop level 1 and level 2 tests
- Secure funding, work hours, and or resource commitment in order to run pilots for level 1 and level 2 tests
- Recruit volunteers to be tested on level 1
- Pilot level 1 tests
- Evaluate level 1 pilot
- Plan level 2 test content and scoring
- Define level 2 test site requirements
- Recruit level 2 assessors
- Recruit volunteers to be tested on level 2
- Pilot level 2 test
- Evaluate level 2 pilot

Appendix F

Text of Email sent out to prospective stakeholders

Dear [name of organisation or contact],

I am carrying out consultancy work for Nature Scot (formerly Scottish Natural Heritage) and The Association of Foragers. My role is to connect with potential interest groups and collaborators for the development of a Wild Food Accreditation Scheme (WFAS).

The scheme will promote excellence in all aspects of foraging including accurate identification, food safety, sustainable harvesting and ecological considerations as well as promoting its benefits to physical and mental wellbeing. I have attached a brief summary of the project's origins, scope and ambitions as it is currently envisioned. I'd be happy to send you a more detailed development report if you'd like to know more. In line with the project's identified objectives we are contacting a range of potential stakeholders, with the intention of gathering insights and perspectives. Ultimately we will be looking to establish a steering group to take the project forward. We consider the [name of organisation or contact] to be an important stakeholder, and would welcome your initial thoughts. If you'd like to discuss this informally, I'd be happy to chat. If I have contacted the wrong person, I'd be grateful if you could connect me with the right person to speak to in your organisation.

Thank you for your time,

Best wishes

Text of Accompanying Stakeholder Engagement document sent out to prospective stakeholders

Summary:

The collaborative development of a Wild Food Accreditation Scheme is a partnership between the Association of Foragers <https://foragers-association.org> and NatureScot <https://www.nature.scot/> . This UK voluntary accreditation scheme will allow individuals to demonstrate their knowledge around the identification, ecological role, sustainable harvesting, safe handling and safe usage of edible wild plants, fungi and seaweed.

The Vision:

A Wild Food Accreditation Scheme will support, encourage and promote safe and responsible foraging practices and wild food usage in the interests of ecological protection, promoting mental and physical wellbeing, resilient food systems, economic stimulation and cultural heritage.

Key principles of the Wild Food Accreditation Scheme:

- Accreditation is on species-by-species basis
- Qualification in a particular species results in an accreditation that can show a defined degree of competency in that particular species
- Different levels of tests will demonstrate different levels of competency
- An intersectional approach which combines foraging, ecology, food safety, business promotion, nature connection and resilient food systems
- Tests and accreditation will be developed and agreed through collaboration and partnership between environmental organisations, land managers, foraging teachers, botanists, mycologists, marine scientists, business and food standards stakeholders

Background and need:

In September 2019 the first meeting of the Scottish Non-Timber Forest Product Network brought together academics, food and drink businesses, conservation groups, Forestry Scotland, foraging teachers, third-sector & government organisations. Together they identified a lack of clear, accessible information and benchmarking around sustainable harvesting and safe usage of wild plants, fungi and seaweed as a key barrier to many of their diverse objectives. These issues are not only relevant to Scotland but to the rest of the UK. The Food Standards Scotland (FSS) Policy Advisor acknowledged the challenges faced by the FSS and Environmental Health Officers in understanding how wild ingredients fit within Hazard Analysis and Critical Control Point (HACCP) principles, food labelling for public safety and that these challenges were growing as more producers and chefs used wild ingredients. Conservation groups highlighted that any guidance and information developed to support foraging activity must take account of protection of rare species and habitats and recognise that guidelines may vary for each different species and habitat.

Foraging teachers from the Association of Foragers identified the need for a coherent approach across various stakeholders that could support and advise responsible foraging practices as the use of wild foods continues to increase in popularity. Arising from these diverse perspectives, a need for a formal accreditation scheme for foraging has been identified.

Stakeholder Engagement:

In order to collaboratively develop the Wild Food Accreditation Scheme we are reaching out to all interested parties in order to gather opinions, ideas and information that is essential for the development of the Scheme. If you are willing to be part of this development please fill in the contact information below. GDPR statement: By agreeing to be part of this collaborative network of interested parties to the Wild Food Accreditation Scheme you are agreeing to be contacted about

this work and for the name of your organisation and contact details of a key contact person to be held on file. This information will not be used for any other purpose and we will not make these details available to anyone outside of Association of Foragers and NatureScot or their contractors working on this project.

Please fill in the details below and return this form to the Wild Food Accreditation Scheme contact that you received it from by email:

Name of Organisation:

Website:

Main Contact Phone Number:

Name of Contact Person:

Email address of Contact Person:

By completing and returning this form I agree to the above information being held by The Association of Foragers and NatureScot for the sole purposes of development of the Wild Food Accreditation Scheme.

GDPR Contact for the Wild Food Accreditation Scheme:

<https://foragers-association.org/Contact> or Email: admin@foragers-association.org

Appendix G1

Report for Wild Food Accreditation Scheme Development Scotland and Northern Ireland Stakeholder Analysis

Analysis Completed and Report Prepared by Dr Marian Bruce

25 March 2021

Summary of Work to be undertaken

Task 5: Research, identify, approach and report on an appropriate steering group to oversee the future development of the WFAS.

You will research, identify and produce a written report on appropriate Scotland and Northern Ireland based organisations, stakeholders and individuals to partner the Association of Foragers in delivering a WFAS. Working closely with the Association of Foragers committee, you may also informally and/or formally contact individuals within potential stakeholder groups including, but not restricted to, the following:

- *Food Standards Agency Scotland*
- *Reforestation Scotland*
- *Scotland Food and Drink*
- *Forestry and Land Scotland*
- *Fungi Scotland*
- *Forest School Association*
- *Scottish Association for Marine Science*
- *Physical/Mental Health Professionals*

You will compile brief outlines and contact details for individuals who can speak for these stakeholders and interest groups. This role requires a good grasp of, and enthusiasm for, the WFAS as it currently stands, as well as excellent networking and communication skills, and the ability to explore a sense of shared purpose among potential stakeholders.

Methods

Prospective stakeholders based in Scotland and Northern Ireland (and some that are UK wide organisations) were contacted with a personalised email request for engagement and a file containing a summary of the background to and aims of the Wild Food Accreditation Scheme between 19th and 25th March 2021. In collaboration with Michael White, who was carrying out the analysis for England and Wales, a standardised email and accompanying stakeholder letter was prepared and used throughout (see Appendix 1 & 2). Individual or organisation replies to follow-up emails and phone enquiries were fielded and noted and completed stakeholder forms were gathered. Replies and information was gathered for a further two months following the 25th March end date to the work and sent on to Mark Williams.

The following data for prospective stakeholders were documented in a spreadsheet:

- Stakeholder Organisation
- Website
- Generic Email Address
- Phone Number
- Name of Primary Contact
- Email of Primary Contact
- Details of Contact Made
- Response to Approach
- Signed form returned

Results

The details of all the prospective stakeholders contacted and the details of replies and outcomes are provided in accompanying Excel spreadsheet: WFAS_Stakeholder Engagement_Scotland_NI.xls.

Summary of the Scottish and Northern Ireland Prospective Stakeholders by sector:

- Government Departments or Agencies n=8
- Third Sector Organisations n=23
- Academics n=12 individuals, 10 research centres
- Chefs n=12, 11 individuals, 1 sector organisation
- Other Businesses n=8
- Physical/Mental Health Professionals n=2
- Total contacts n= 65

Summary of Prospective Stakeholders by Location:

- Scotland n=54
- Northern Ireland n=6
- UK wide n=5

Stakeholder Interactions and Replies:

- Follow up phone calls and emails as a result of enquiries n=16 out of 65
- Number replied by 25th March 2021 and willing to be consulted n=15 out of 65

Due to the current covid restrictions and home working it is likely that many organisations will take longer than usual to reply. Where generic email addresses are used rather than a personal contact address it may also take time for information to be referred to the correct person within any organisation. It may also take weeks to months for larger organisations to reply if committees or boards have to be consulted with, in order to reply to the request for stakeholder engagement. Therefore, a continuation of answering of email enquiries will be carried for a further two months beyond 25th March, up until 25th May 2021. The number of replies is likely to be much greater over this longer time period. The final number of replies and stakeholder forms accumulated will be sent on to Mark Williams shortly after 25th May 2021.

The majority of stakeholders were pleased to have been contacted, were supportive of the aims of the Wild Food Accreditation Scheme as laid out and were willing to be involved in the consultative development work of the scheme going forwards.

A document containing all completed and returned stakeholder engagement forms is supplied collated in a separate pdf file. Completed Stakeholder Forms_Scotland_NI.pdf. (Due to GDPR legislation access to this file is restricted).

Appendix G2

Report for Wild Food Accreditation Scheme Development England and Wales Stakeholder Analysis

Analysis Completed and Report Prepared by Michael White

25 March 2021

Brief:

Research, identify, approach and report on an appropriate steering group to oversee the future development of the WFAS

You will research, identify and produce a written report on appropriate organisations, stakeholders and individuals to partner the AoF in delivering the WFAS. Working closely with the AoF committee, you may also informally and/or formally contact individuals within potential stakeholder groups including, but not restricted to, the following:

- Natural England
- Food Standards Agency, England/Wales
- Food and Drink business agencies England/Wales
- Forestry England
- British Mycological Society
- Botanical Society of Britain and Ireland
- Forest School Association, England
- Physical/Mental Health Professionals
- Craft Guild of Chefs

You will compile brief outlines and contact details for individuals who can speak for these stakeholders and interest groups.

Progress report:

After a conversation with Mark Williams, it was agreed that I would be responsible for contacting and liaising with organisations and individuals in England and Wales. Alongside researching and identifying potential stakeholders, initial work involved drafting and then agreeing an introductory statement and overview of the WFAS project with Marian and Mark. These were then used to approach organisations.

The stakeholder analysis document lays out the organisations which I have contacted and contact details of individuals where appropriate. This document is not complete and as replies come in, I will update it with the new details. (Due to GDPR legislation access to this file is restricted).

Apart from some automated replies and a couple of responses informing me that my email will be passed on, I have to date had no meaningful responses or expressions of interest. I suspect that responses will be slow, with many offices being closed due to covid and staff working from home. Also, many organisations are very large with multiple departments and as most of my emails were sent to the generic email addresses, it will take time for them to reach the correct person/department.

If no reply is forthcoming from some organisations, it should not be assumed that there is no interest. It seems likely that some emails will not find the correct person and a telephone follow up at least seems sensible. All numbers I have phoned thus far have had automated messages saying the office is closed due to covid, but hopefully this situation will change as restrictions are lifted.

Totally Wild u.k, headed up by James Wood has developed an internal accreditation scheme, providing certification for his own foraging instructors. It is not clear what is accredited or how. I have reached out to James in the past and although he has expressed interest in the proposed WFAS, has not contributed since the early discussion stages and did not sign up for the recent round of work on the scheme.

I have been back in contact with James and invited his involvement in the current round of work. He acknowledged that a transparent, widely recognised publicly administered accreditation scheme would be a good model for the industry, and inferred that his internal accreditation scheme might be equivalent to WFAS Level 3. James would be willing to work in future development of the proposed WFAS seeing it as a chance to realise some of the time and investment he has already put into his own scheme.

Work going forwards:

I have fulfilled the brief as fully as possible within the given time frame, but inevitably the work of fielding enquires, returning emails and compiling a list of interested parties will continue.

Appendix H

Wild Food Accreditation Scheme (WFAS) Level 1 Test Coordinator Report

Sarah Watson

Member of the Association of Foragers
BSC Botany, Ecology and Conservation
MSC Rural & Regional Resources Planning

March 2021

Contents

1. Background
2. Communication
3. Test writing and review process
4. Test coordination
5. Recommendations
 - a) Test-writing guidelines/template
 - b) Skills/role
 - c) Test writing and review
 - d) Updating tests
 - e) Feedback
6. Next steps

1. Background

As test coordinator my brief was to:

- Oversee, coordinate, support, document and ensure the timely completion of the test writing and review process for 12 species tests for the accreditation scheme.
- Work with test-writers to ensure tests are complete, fully referenced, accredited and in the correct format to be shared with other stakeholders.
- Report back to the committee on the progress of the test writing and review process.

A team of five AoF members was set up from 2 March 2021 with 10 Level 1 tests allocated, two each to write. All the tasks were taken up except one (writing a L1 test for sea kale). An additional test was also later undertaken voluntarily by one of the team members.

The deadline for the first test drafts was 16 March, with the deadline for peer reviewing the test documents agreed as 18 March. The deadline for the test coordinator to complete commenting on and editing tests was 25 March.

Overall, this initial test-writing pilot project has been a learning process that's given some really valuable insights into test-writing using a number of different authors, with lessons to help lay the ground for developing future tests.

2. Communication

There were a couple of video calls for the team: a first introductory Zoom meeting with Mark Williams, and a second about a week later once test-writers had started to get stuck into their tests. It was good to have the option of the free Jitsi room, although it was a bit more glitchy than Zoom with a tendency to freeze up sometimes.

I created some additional guidance notes as tests came in and issues arose (see my document WFAS level 1: Additional guidance for test writers [Request access - admin@foragers-association.org]). These were sent out in two emails, the first soon after the initial meeting, and the second later, around the first draft deadline period. One of the test-writers admitted they hadn't read the set of ten bullet points in the second set of guidance notes, another pointed out they'd been useful. The notes were intended to be as brief and clear as possible and help clarify some issues and points e.g. best practice for writing multiple choice questions and a test checklist.

As a team, we had to feel our way through the process as a pilot to some extent. It felt like we were learning as we went along. The production of extra guidelines part way through the process may have been a bit frustrating for the test-writers, perhaps feeling it had coming a little too late for them to have the time and headspace to assimilate them completely.

I offered support for any problems or questions with the process several times, via video call, WhatsApp and email and gave out my mobile number. I had a few 1 to 1 phone or video calls. I set up a WhatsApp group for the team in which there were extensive discussions via messages between each other. Test-writers also used Jitsi and Zoom for chatting between themselves during the review process, and to support each other with how to use Google docs.

It transpired during the test-writing process in telephone and WhatsApp conversations that test-writers were not always immediately coming forward to ask for help when they were having trouble e.g. with formatting in Google docs or to ascertain whether additional drafts were needed, which unfortunately meant they'd grappled on their own a bit.

3. Test-writing and review process

There was some great information in the tests. I felt all the test-writers worked hard, although tests were written in very differing styles, which in some ways was a strength. But it was also time-consuming for everyone to ensure tests were consistent enough to be professional as a set, and at the right level to challenge test-takers.

Each of the 11 tests are awaiting at least some minor resolution or images/diagrams to be sourced before completion (some test-writers offered to take their own photos for tests and volunteered to do so in future). With people having other commitments, deadlines from the first draft to the final deadline drifted by about four days.

A really positive aspect of these tests for me was the myth-busting (for example, clarification of misinterpreted research on contraindications) and the distillation of knowledge and research from experienced AoF members in writing species tests.

It was clear that all the test-writers felt a degree of ownership over their tests. Several said they'd learnt much during the process and would be looking at the species in a new light going forward.

Despite the issues mentioned in communication and test writing, there was a team feel to the process, helped by video calls. Test-writers supported each other and Lisa made a very useful template for questions/answers which she shared, and that helped keep the style consistent to an extent.

I felt some questions seemed too simplistic for a test-taker who should already have a basic knowledge of the species and the ability to look up information in an open source test. Questions were rarely made too difficult in my opinion but could sometimes be off point in terms of focusing directly on the species being tested. In other cases, a few questions were overly complex and long.

Most test-writers replied to review comments to explain whether they'd actioned suggestions, and if not, why they hadn't. Occasionally however, it wasn't stated why test-writers had rejected suggestions. It would be useful for the committee to give some guidance on how far to include related/similar species and when it's felt to be relevant knowledge for the test. There were some issues with using Google docs e.g. formatting docs, transferring ownership of tests, inadvertent deleting of comments - it seemed quite tricky and unwieldy to use at times. Not that I have an alternative suggestion.

Some key concerns raised by test-writers:

- A test-writer raised that they felt uncomfortable using the words 'invasive and non-native' for a Schedule 9 species.
- Some test-writers strongly felt there should be a set of generic questions for fungi, seaweed and plants to be asked only once, rather than asking test-takers to repeat them for several species tests.
- One member felt that AoF member publication and website references listed in the tests' resource sections should focus on active AoF members who 'give back' to the organisation.
- Some said they found it hard to think up distractor (incorrect) answers, and there were also issues with finding and sifting out relevant information e.g. with shifting and somewhat esoteric goalposts in naming seaweed species.
- It was asked whether AoF principles should be mentioned e.g. the connection with nature fostered by foraging, encouraging a deeper sense of responsibility for wildlife and habitats.

We started a Log of L1 Questions/Issues in which to park comments and questions about the overall test format - they're listed on a spreadsheet which the committee might like to review or comment on. [Request access - admin@foragers-association.org]

4. Test coordination

I spent time working with the test-writers and highlighting any areas I felt might need adjustment. The process felt rather rushed to be able to negotiate gently, which led to quite a few unresolved questions and incomplete tests. The committee's view on which questions should be included, or are off-subject, or which might be useful for L2 tests, will be valuable and help future test-writing guidance/formats.

I didn't remove any questions without the writer's agreement but I did make final adjustments (which were surprisingly time-consuming) involving:

- Tidying up formatting and making the tests feel consistent and professional to pass on to funders and potential sponsors.
- Checking some facts for accuracy.
- Checking references as far as possible within the time, adding a few extras where they were scant, especially conservation organisations.
- Checking multiple choice correct answer options listed tallied with actual answers.
- Making some fairly minor amendments for consistency, e.g. rewriting some of the most implausible answers; adding common names where binomials were listed; ensuring common names weren't capitalised; simplifying Q and As to be as concise as possible and easy to read; evening up some answer lists so the correct answer didn't stand out as the longest.
- Checking if sustainable harvesting/ecology/conservation questions needed tightening up.
- Adding margin comments for the committee - showing unresolved questions/answers/issues.

It's unlikely that the comments history gives a feel for the amount of time and effort spent by the team on writing, reviewing and commenting on the tests, and negotiating and amending some 220 questions. Overall the coordination work - researching and creating guidance; phone/zoom calls; emails; WhatsApp messaging; reviewing, commenting on and editing tests - took me around 10 days, loaded towards the end of the period, not including writing this report. I felt well-supported and encouraged by Mark Williams during the process, who was helpful over a few calls, WhatsApp messages and emails, giving me advice and guidance when issues arose.

5. Recommendations

a. Test-writer guidelines/form

Ensure guidelines are as succinct and relevant as possible from the start of the process - combine Mark's original tips for test developers with my extra guidelines in one place. Perhaps with a requirement for test-takers to respond to confirm that they have read them. Amend guidelines where necessary, based on committee recommendations for tests and scheme structure.

Mark Williams and I agreed that a generic form to compete for test-writing - specific ones for fungi, seaweeds and plants - would really help keep the tests on track, focused and more consistent in terms of the questions, including for example (but not exhaustively):

- Reasons for name, other common/folk names.
- V. similar species to be confused with - especially rare.
- Family/category.

- Habitats, geographical distribution.
- ID: growth habit, leaves, stem, flowers, seeds, bulbs/roots, stipe, cap, pores/gills, fronds, holdfast, feel, smell, etc, as relevant to spp.
- Sustainable harvesting and seaweed/fungi/plant specific points e.g. Any evidence it might be adversely affected by harvesting/trampling etc.; reproduction, lifespan and speed of regrowth; species conservation status and ecological benefits; Schedule 9 issues and legislation.
- Safety and potential problems e.g. dangerous lookalikes, handling/storage issues; processing/consumption/parasite/bacterial/allergy issues.
- Uses - which parts are used; seasonality (harvesting period); how it's consumed; stored; processed (although processing detail is mainly Level 2 as I understand it).

2. Skills/role

To ensure that future test-writers have appropriate skills for the role. I suggest they need to:

- Be scientifically minded and logical - a scientific background/qualification could help, but probably not essential.
- Have the ability to think objectively and factually.
- Have the ability, drive and attention-to-detail to be able to research quite complex information and pick out accurate facts.
- Be able to work to a tight brief with a good degree of focus and energy for the task.
- Have the ability to be flexible, to take on board constructive feedback, and to act on it.
- Have the ability to communicate fairly concisely in writing and verbally.
- Have a good knowledge of the test species including overview of ecology/conservation, uses, legislation.
- Understand what a credible source of information is, i.e. backed by research and references, and/or experience/qualifications.
- Have a fairly active imagination.

c. Test writing and review process

It may be necessary to allow a bit more wriggle room with timing for unexpected events, although with a template and tighter guidelines, the process may be quicker.

Keep various lines of communication open for future test-writers, ensuring members overseeing the process are not expected to be on call 24/7. Offer more, short, informal opportunities for test-writers to raise issues during the process - brief Jitsi clinics?

d. Updating tests

A process for reviewing tests and feeding in new information on test species is needed. That AoF members as a whole keep their ears and eyes open for new information on test species' taxonomy, ecology/conservation, ethnobotany and legislation, for inclusion in tests.

e. Feedback

Asking test-writers for their experiences and views could provide more information to help improve the process e.g. the time it took them and may take them in future; the problems

they faced and what they enjoyed/disliked, found useful/enlightening; and any improvements they'd suggest.

6. Next steps

- Ask for feedback from test-writers.
- Incorporate initial feedback from committee and test-writers to the process.
- Develop test-writing forms - I've started putting together some ideas for this based on my guidelines and good practice in the new tests, and the pilot ones from Michael and Mark.
- Feedback/peer review and committee approval of a final format for the suggested test-writing forms would be essential. It might be possible to develop a form(s) from a free online form builder e.g. <https://www.google.co.uk/forms/about/> , <https://www.jotform.com/>
- Complete pilot tests.
- Develop an ongoing test update process for finalised tests.

Appendix I

Species Selected and Prioritised for L1 Tests

Plants and Trees		
Common Name(s)	Binomial Name(s)	Priority (1=Top to 3=Low)
Most commonly used common name(s)	Species or genus name	Priority for writing test based on usage and sensitivity
Common Hogweed	<i>Heracleum sphondylium</i>	1
Japanese knotweed	<i>Fallopia japonica</i>	1
Nettles	<i>Urtica spp</i>	1
Dandelions	<i>Taraxacum officinale</i>	1
Ground elder	<i>Aegopodium podagraria</i>	1
Wild garlic	<i>Allium ursinum</i>	1
Wild leeks (3CL/FFL)	<i>Allium triquetrum/paradoxum</i>	1
Common Sorrel	<i>Rumex acetosa</i>	1
Wood sorrel	<i>Oxalis acetosella</i>	1

Mugwort	<i>Artemesia vulgaris</i>	2
Hairy Bittercress	<i>Cardamine hirsuita</i>	1
Pineapple Weed	<i>Matricaria discoidea</i>	1
Chamomile Family	<i>Matricaria recutita/ Chamaemelum nobile</i>	2
Spruces	<i>Picea spp</i>	2
Pines	<i>Pinus spp</i>	2
Firs	<i>Abies spp</i>	2
Larch	<i>Larix spp</i>	1
Marsh samphire	<i>Salicornia spp</i>	1
Sea purslane		1
Sea arrowgrass	<i>Triglochin maritima</i>	1
Sea aster	<i>Tripolium pannonicum</i>	1
Sea blite	<i>Suaeda maritima</i>	1
Dock family (not including common sorrel)	<i>Rumex spp</i>	1
Rock samphire	<i>Crithmum maritimum</i>	1
Orache family	<i>Atriplex spp</i>	1
Sea beet	<i>Beta vulgaris subsp. maritima</i>	1
Sea kale	<i>Crambe maritima</i>	1
Sea sandwort	<i>Honckenya peploides</i>	1
Sea buckthorn	<i>Hippophae rhamnoides</i>	1
Wild roses	<i>Rosa canina</i>	1
Elder	<i>Sambucus nigra</i>	1
Blackthorn	<i>Prunus spinosa</i>	1
Hawthorn	<i>Crataegus spp</i>	1
Yarrow	<i>Achillea millefolium</i>	1
Ground ivy	<i>Glechoma hederacea</i>	1
Common vetch	<i>Vicia sativa ssp. segetalis</i>	2
Rowan	<i>Sorbus</i>	1
Bilberry	<i>Vaccinium myrtillus</i>	1
Blackberry	<i>Rubus fruticosus</i>	1
Meadowsweet	<i>Filipendula ulmaria</i>	1
Hawthorn	<i>Crataegus sp</i>	1

Linden Lime	<i>Tilia x europaea</i>	1
Hazel	<i>Corylus avellana</i>	1
Sweet Chestnut	<i>Castanea sativa</i>	1
Fungi		
Common Name(s)	Binomial Name(s)	Priority (1=Top to 5=Low)
Most commonly used common name(s)	Species or genus name	Priority for writing test based on usage and sensitivity
Chanterelle	<i>Cantharellus cibarius</i>	1
Winter chanterelles	<i>Craterellus tubaeformis, c aurora+</i>	1
Penny bun +summer and dark cep maybe?	<i>Boletus edulis</i>	1
Wood blewit	<i>Clitocybe nuda</i>	1
Hedgehog mushroom	<i>Hydnum repandum</i>	1
Chicken of the Woods	<i>Laetiporus sulphureus</i>	1
Deceiver/Amethyst Deceiver	<i>Laccaria spp</i>	2
Bay bolete	<i>Imaldia badius</i>	1
Orange/Brown Birch Bolete	<i>Leccinum spp</i>	1
Cauliflower fungus	<i>Sparassis spp</i>	2
Scarlet/Crimson Elf Cup	<i>Sarcoscypha spp</i>	3
Beefsteak mushroom	<i>Fistulina hepatica</i>	3
Oyster mushrooms	<i>Pleurotus ostreatus</i>	1
Puffball/ Giant	<i>Calvatia gigantea</i>	1
Horns of plenty	<i>Craterellus cornucopioides</i>	1
Velvet shank	<i>Flammulina velutipes</i>	3
Waxcaps	<i>Hygrocybe spp</i>	3
Field and Horse mushrooms	<i>Agaricus spp</i>	1
The Blusher	<i>Amanita rubescens</i>	1
Dryad's Saddle	<i>Polyporus squamosus</i>	2

Seaweeds		
Common Name(s)	Binomial Name(s)	Priority (1=Top to 5=Low)
Most commonly used common name(s)	Species or genus name	Priority for writing test based on usage and sensitivity
Laver	<i>Porphyra spp</i>	1
Dulse	<i>Palmaria palmata</i>	1
Sugar kelp	<i>Sacharrina latissima</i>	1
Sea lettuce	<i>Ulva lactuca</i>	1
Egg wrack	<i>Ascophyllum nodosum</i>	1
Tooth wrack	<i>Fucus serratus</i>	1
Pepper dulse	<i>Osmundea pinnatifida</i>	1
Tangle		1
Sea spaghetti	<i>Himanthalia elongata</i>	1
Mermaid's tresses	<i>Chorda filum</i>	1
Channel wrack		1
Spiral wrack		1
Velvet horn		1
Wrack siphon weed		1
Dumont's Tubular Weed		1