

Supplementary Material S1: Level I evaluation examples with explanations, guidelines, data sources used and scoring per attribute assessing the medicinal-cosmetic potential of the local endemic plants of Crete, Greece (223 taxa), Mediterranean coast-Rif of Morocco (94 taxa) and Tunisia (82 taxa)

Level I – Evaluation of the potential in the medicinal-cosmetic sector

Attribute 1: Super food potential (Evidence-based ‘superfood’ characterization)

Guidelines: Review of pharmacognostic literature and ethnobotanical data; additionally, consultation with experts and/or interviews with elderly people / Yes = extant documentation of nutritional value and health promoting agents; Possible = if at least some evidence is available; Under investigation = studies are in progress; No = uncertain/ambiguous data.

Data sources: Crete - Stikoudi et al. 2016, Maietta et al. 2018; additionally, best expert judgment.

Score 6: Taxa suitable as super foods, e.g., *Origanum dictamnus* (EMA 2013, Krigas et al. 2015, Stikoudi et al. 2016, Maietta et al. 2018) and *Sideritis syriaca* subsp. *syriaca* (Stikoudi et al. 2016, EMA 2016). **Score 4:** Taxa potentially suitable as super foods, e.g., *Calamintha cretica*. **Score 3:** Taxa with suspected super food value, e.g., *Helichrysum heldreichii*. **Score 1:** Taxa with uncertain super food value (no case). **Score 0:** Taxa without documentation or cases with no estimation achieved, e.g., *Carlina diae*.

Attribute 2: Identified ethnobotanical uses (Documented ethnobotanical value)

Guidelines: Review pharmacognostic literature and ethnobotanical data; additionally, consultation with experts and/or interviews with elderly people / Yes = documented uses; Possible = identified uses only in congeners (other species of the same genus); Under investigation = studies in progress; No = No data

Data sources: Crete - Axiotis et al. 2018, EMA 2013, 2016, Gonzalez- Tejero et al. 2008, Hadjichambis et al. 2009, Heinrich et al. 2006, Heywood & Skoula 1999, Pieroni et al. 2006, Tsioutsiou et al. 2019, Leonidiou 2016, Psaroudaki 2012; Morocco - Khabbach et al. 2011, 2012; additionally, ethnobotanical survey and best expert judgment.

Score 6: Taxa with documented ethnobotanical uses, e.g., *Campanula pelviformis* (Psaroudaki 2012) and *Origanum elongatum* (ethnobotanical survey). **Score 5:** Taxa with potential ethnobotanical uses, e.g., *Centaurea redempta* subsp. *redempta* (Leonidiou 2016). **Score 3:** Taxa with suspected ethnobotanical uses (no case for Crete). **Score 0:** Taxa without documentation, e.g., *Filago wagenitziana*.

Attribute 3: Medicinal potential (Documented medicinal value)

Guidelines: Review of pharmacognostic literature and/or ethnobotanical data; additionally, consultation with experts and/or interviews with elderly people / Yes = identified and documented properties; Possible = identified properties only in congeners (other species of the same genus); Under investigation = studies in progress; No = No data or unknown properties

Data sources: Crete - Axiotis et al. 2018, EMA 2013, 2016, Gonzalez-Tejero et al. 2008, Hadjichambis et al. 2009, Heinrich et al. 2006, Heywood & Skoula 1999, Krigas et al.

2015, Pieroni et al. 2006, Leonidiou 2016, Stikoudi et al. 2016, Tsioutsiou et al. 2019, Psaroudaki 2012; additionally, best expert judgment.

Score 6: Taxa with documented medicinal uses, e.g., *Origanum dictamnus* (EMA 2013, Krigas et al. 2015, Stikoudi et al. 2016, Maietta et al. 2018) and *Sideritis syriaca* subsp. *syriaca* (EMA 2016, Stikoudi et al. 2016). **Score 4:** Taxa with potential medicinal uses, e.g., *Viola alba* subsp. *cretica*. **Score 3:** Taxa with suspected medicinal uses, e.g., *Micromeria hispida*. **Score 0:** Taxa without documentation, e.g., *Ornithogalum insulare*.

Attribute 4: Distinct ethnobotanical uses (Number of documented ethnobotanical uses)

Guidelines: Review of pharmacognostic literature and/or ethnobotanical data; additionally, consultation with experts and/or interviews with elderly people

Data sources: Crete - Axiotis et al. 2018, Gonzalez- Tejero et al. 2008, Hadjichambis et al. 2009, Heinrich et al. 2006, Heywood & Skoula 1999, Pieroni et al. 2006, Stikoudi et al. 2016, Tsioutsiou et al. 2019, Kloukina et al. 2020, Leonidiou 2016, Psaroudaki 2012; additionally, best expert judgment.

Score 6: Taxa with >4 ethnobotanical uses, e.g., *Origanum dictamnus* and *Sideritis syriaca* subsp. *syriaca* (infusion, decoction, skin and/or hair treatments, natural cosmetics, various culinary preparations, Krigas et al. 2015, Stikoudi et al. 2016, Maietta et al. 2018, Kloukina et al. 2020). **Score 3:** Taxa with 2-4 ethnobotanical uses, e.g., *Origanum microphyllum* (infusion, decoction, culinary preparations). **Score 1:** Taxa with one ethnobotanical use, e.g., *Campanula pelviformis* (wild edible green, Psaroudaki 2012). **Score 0:** Taxa without data on their ethnobotanical uses, e.g., *Cephalanthera cucullata*.

Attribute 5: Distinct medicinal properties (Number of documented medicinal properties)

Guidelines: Review of pharmacognostic literature and/or ethnobotanical data; additionally, consultation with experts and/or interviews with elderly people

Data sources: Crete - Leonidiou 2016, Stikoudi et al. 2016 ; Morocco- Balahbib et al., 2021)

Score 6: Taxa with >9 medicinal properties, e.g., *Origanum dictamnus* (against cold, against infections, antioxidant, in amenorrhea and gastrointestinal disorders, antihelminthic, for neurological disorders, anticancer, antihemorrhoid, antidysenteric, against lethargy; Krigas et al. 2015, Leonidiou 2016, Stikoudi et al. 2016, Maietta et al. 2018). **Score 5:** Taxa with 8-9 medicinal properties, e.g. *Origanum elongatum* (such as antibacterial, antifungal, antiparasitic, antiviral, antioxidant, vasodilator, corrosion inhibitor, and hepatoprotective effects; Balahbib et al., 2021) . **Score 4:** Taxa with 6-7 medicinal properties (no case). **Score 3:** Taxa with 4-5 medicinal properties (no case). **Score 2:** Taxa with 3 medicinal properties, e.g., *Origanum microphyllum* (infection, oxidation and cancer, Leonidiou 2016). **Score 1:** Taxa with 2 medicinal properties, e.g., *Onopordum bracteatum* subsp. *creticum* (gastrointestinal disorders and nephrolithiasis, Leonidiou 2016). **Score 0:** Taxa without known medicinal properties, e.g., *Cotoneaster creticus*.

Attribute 6: EMA Monograph (Publication status of the herbal monograph of the European Medicines Agency)

Guidelines: Consult EMA monographs' publication status (ema.europa.eu/en)

Data sources: European Medicines Agency (www.ema.europa.eu/)

Score 6: Taxa with finalized monograph, e.g., *Sideritis syriaca* subsp. *syriaca* (EMA 2016) & *Origanum dictamnus* (EMA 2013). **Score 5:** Taxa with monograph under review (no case). **Score 4:** Taxa with published draft monograph (no case). **Score 3:** Taxa with under preparation monograph (no case). **Score 2:** Taxa with initiate monograph (no case). **Score 1:** Taxa with assigned monograph (no case). **Score 0:** Taxa without monograph, such as the rest of the Cretan taxa as well as all studied Moroccan (Mediterranean coast-Rif) and Tunisian taxa.

Attribute 7: Approved indications (Number of approved EMA indications)

Guidelines: Consult EMA monographs' publication status (ema.europa.eu/en)

Data sources: European Medicines Agency (www.ema.europa.eu/)

Score 6: Taxa with >5 approved EMA indications (no case). **Score 5:** Taxa with 5 indications (no case). **Score 4:** Taxa with 4 indications (no case). **Score 3:** Taxa with 3 indications, e.g., *Origanum dictamnus* (traditional herbal medicinal product used for the relief of cough associated with cold, mild gastrointestinal disorders and minor skin inflammations and bruises, EMA 2013). **Score 2:** Taxa with 2 indications, e.g., *Sideritis syriaca* subsp. *syriaca* (traditional herbal medicinal product used for the relief of cough associated with cold and mild gastrointestinal discomfort, EMA 2016). **Score 1:** Taxa with 1 indication (no case). **Score 0:** Taxa without indications, such as the rest of the Cretan taxa as well as all studied Moroccan (Mediterranean coast-Rif) and Tunisian taxa.

Attribute 8: Identified phytochemical compounds (studied categories of phytochemicals and concomitant biological activities)

Guidelines: Species-specific literature survey (databases and grey literature) / Preliminary = only studied composition of one category of phytochemicals; General = studied composition in >1 categories of phytochemicals; Analytical = studied composition in >1 categories of phytochemicals accompanied with tested biological activities

Data sources: Crete - Alfaro et al. 2014, Athanasas et al. 2004, Contandriopoulos & Lantalavi 1968, Demetzos et al. 2000, EMA 2013, 2016, Fokialakis et al. 2007, Krigas et al. 2015, Michalakea et al. 2019, Mitrocotsa et al. 1999, Skoula & Grayer 2004, Stikoudi et al. 2016, Syros et al. 2003. ; Morocco- Balahbib et al., 2021)

Score 6: Taxa with analytical chemical profile, e.g., *Origanum microphyllum* and *Origanum elongatum*. **Score 4:** Taxa with general chemical profile, e.g., *Teucrium cuneifolium*. **Score 3:** Taxa with preliminary chemical profile, e.g., *Calamintha cretica*. **Score 0:** Taxa not studied yet (no documentation), e.g., *Bupleurum gaudianum*.

Attribute 9: Poisonousness-Toxicity (Presence of dangerous compounds)

Guidelines: Toxic/poisonous = documented toxicity according to literature or after interviews; Possible = toxicity in congeners (other species of the same genus); Suspected = some indications extant; Uncertain-ambiguous = controversy of data; Not toxic / not poisonous = documented absence of toxicity

Data sources: Plants for a Future (www.pfaf.org/); additionally, best expert judgment based on empirical knowledge.

Score 6: Taxa without toxic or poisonous properties, e.g., *Crepis sibthorpiana*. **Score 4:** Taxa with uncertain- ambitious data on their toxicity, e.g., *Bellevialia sitiaca*. **Score 3:** Taxa's toxicity under investigation, e.g., *Hypericum amblycalyx*. **Score 2:** Taxa with potentially toxic or poisonous properties, e.g., *Ranunculus radinotrichus*. **Score 0:** Taxa with documented toxic or poisonous properties, e.g., *Securigera globosa*.

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