



Crop Wild Relatives of Lebanon

Distribution and Collecting Maps

Introduction

This work was undertaken as part of the initiative “Adapting Agriculture to Climate Change” which is supported by the Government of Norway. The project is managed by the Global Crop Diversity Trust with the Millennium Seed Bank of the Royal Botanic Gardens, Kew, in partnership with national and international genebanks and plant breeding institutes around the world. It is implemented in accordance with the International Treaty on Plant Genetic Resources for Food and Agriculture. For further information see the project website: www.cwrdiversity.org/



Many individual scientists, herbaria, genebanks and specialist institutes are contributing advice and information to the Project and these guides. The Project aims to collect the wild relatives of 29 key crops, conserve them in genebanks, and prepare them for use in plant improvement programmes to breed new crop varieties adapted to future climates.

The boundaries and names shown on the maps included in this guide do not imply official endorsement or acceptance by the Adapting Agriculture to Climate Change Project. Data source: GADM, version 1.0 via diva-gis.org.

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The Harlan and de Wet Crop Wild Relatives Checklist was developed by Holly Vincent and Nigel Maxted at the University of Birmingham.

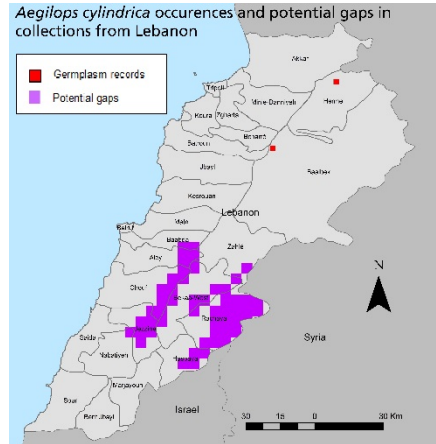
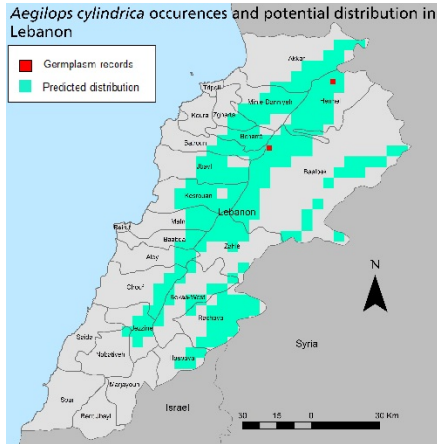
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The Gap Analysis work which informed the list of species included in this guide, and all the map files, were produced by the Gap Analysis team at CIAT: Andy Jarvis, Nora Castañeda, Colin Khoury and Julian Ramirez-Villegas.



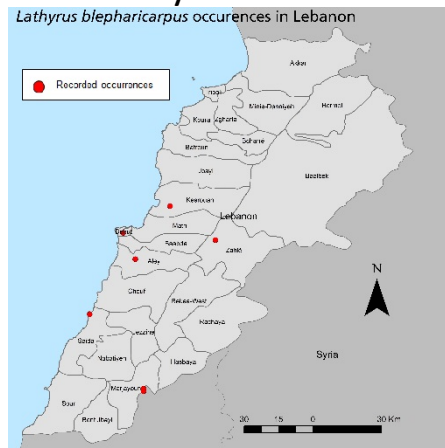
Maps

Where possible, two maps are provided for each target species. The first map shows a point distribution of all the known localities of this species based on herbarium specimen records and existing data-sets. The area shaded on this map shows the predicted distribution based on Maxent.

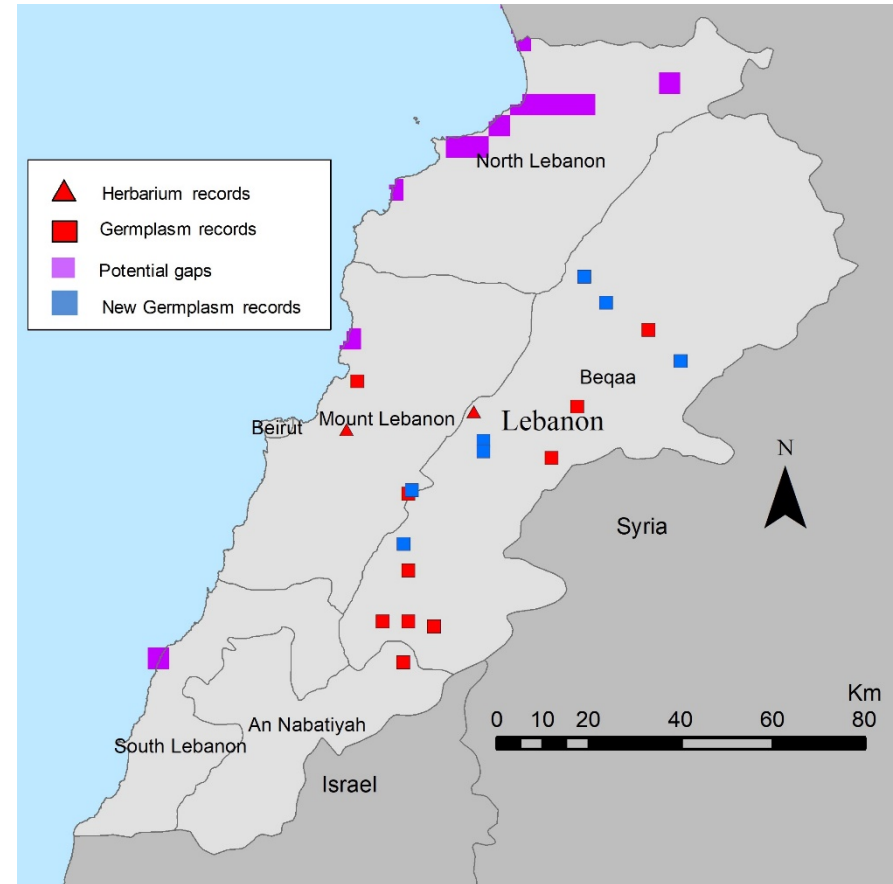
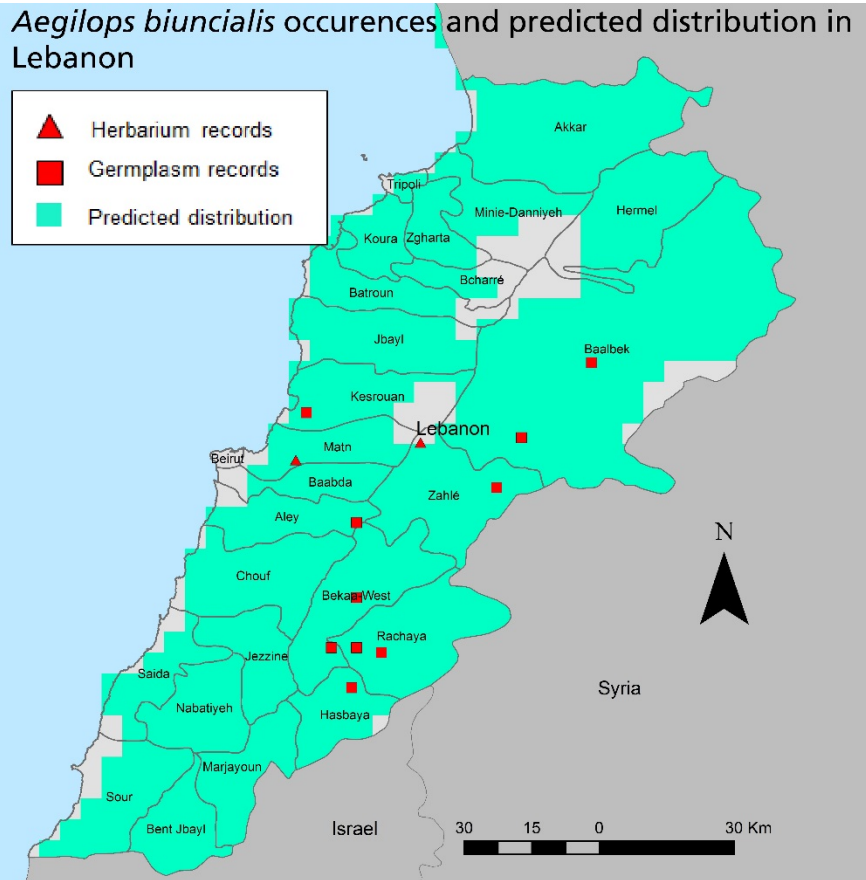


The second map shows the potential gaps in gene bank collections, where seed collections should be targeted.

For some target species where only the occurrence records data is known, and this is shown as a point distribution.

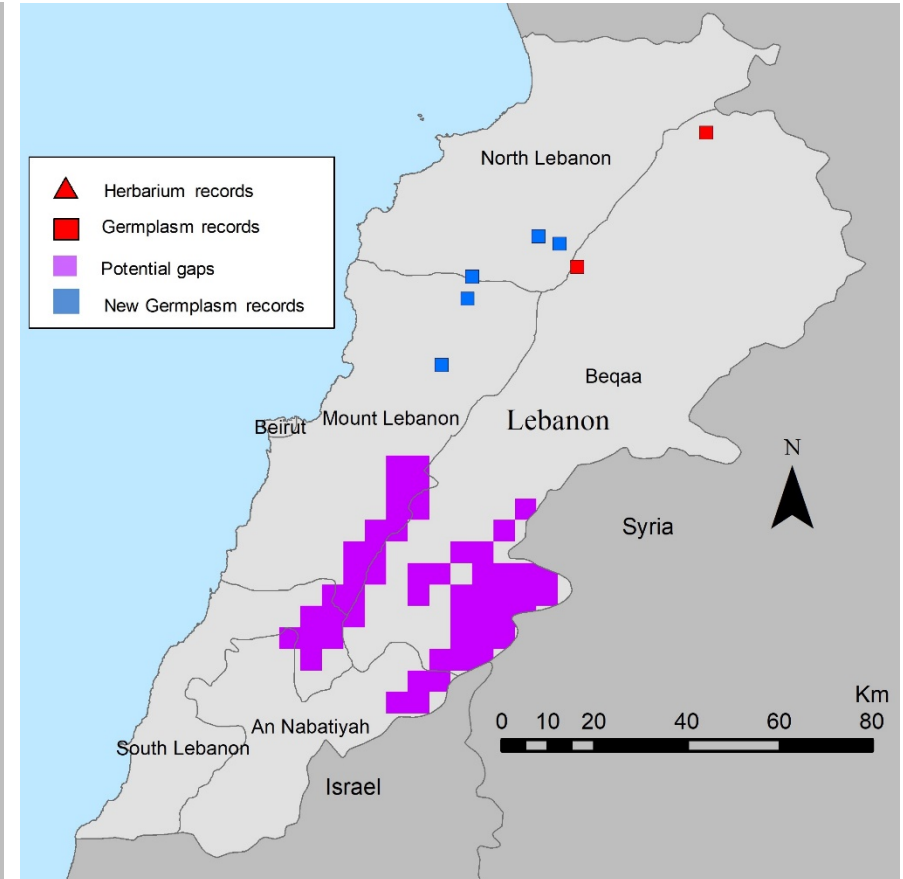
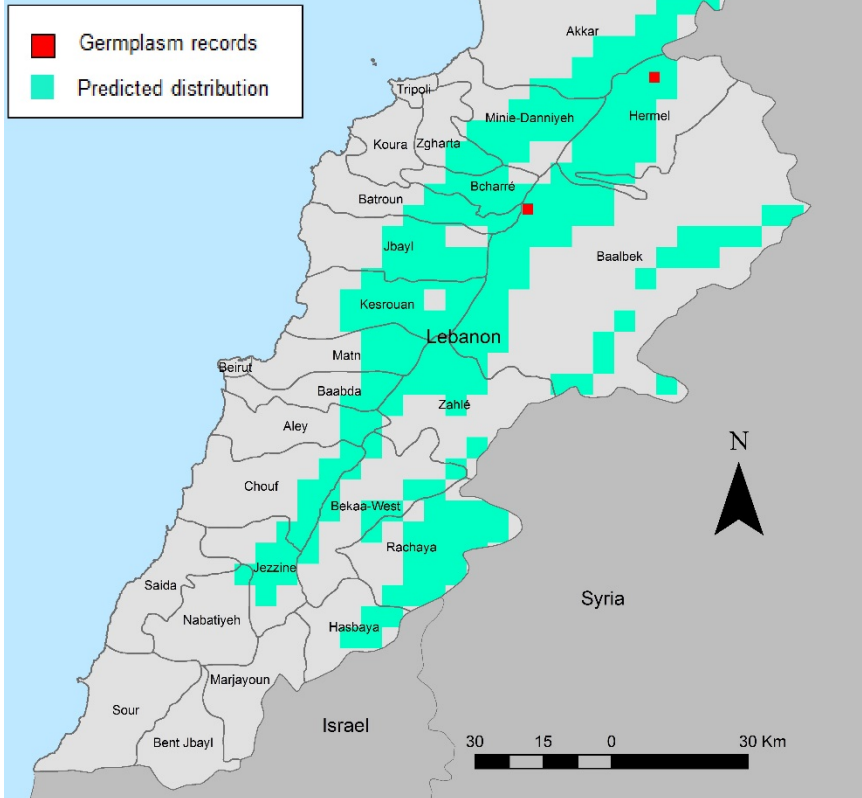


Aegilops biuncialis Vis.

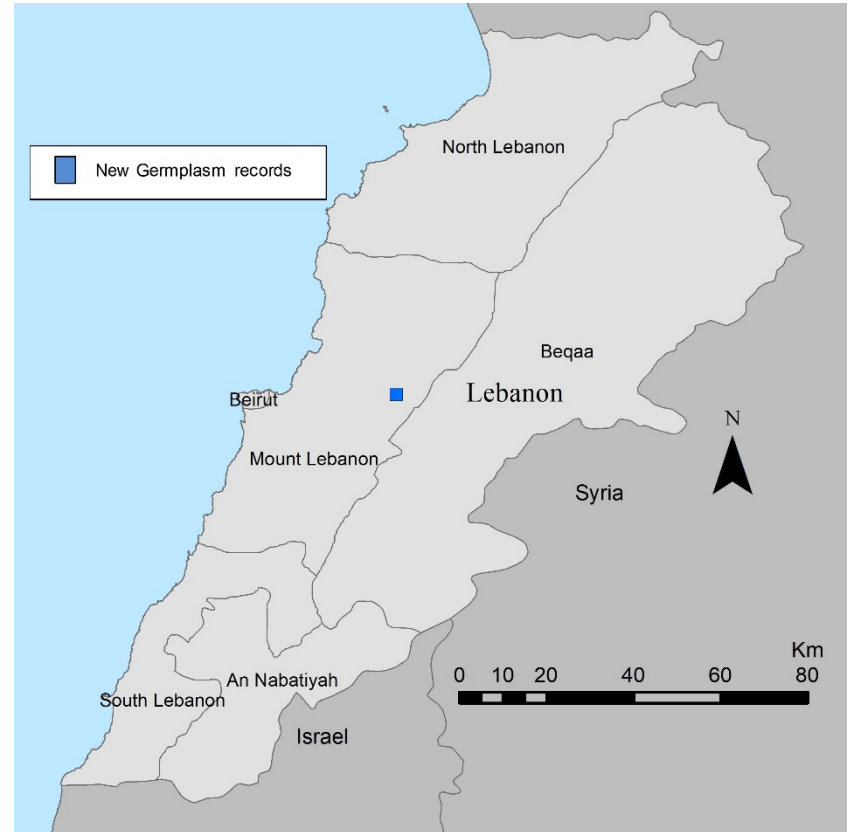
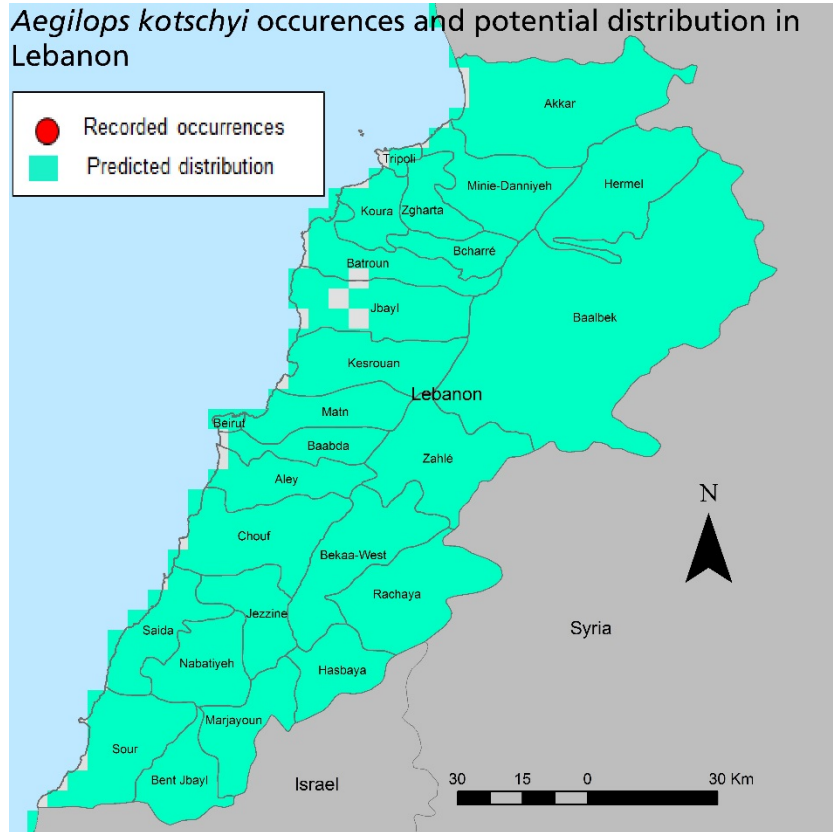


Aegilops cylindrica Host

Aegilops cylindrica occurrences and potential distribution in Lebanon

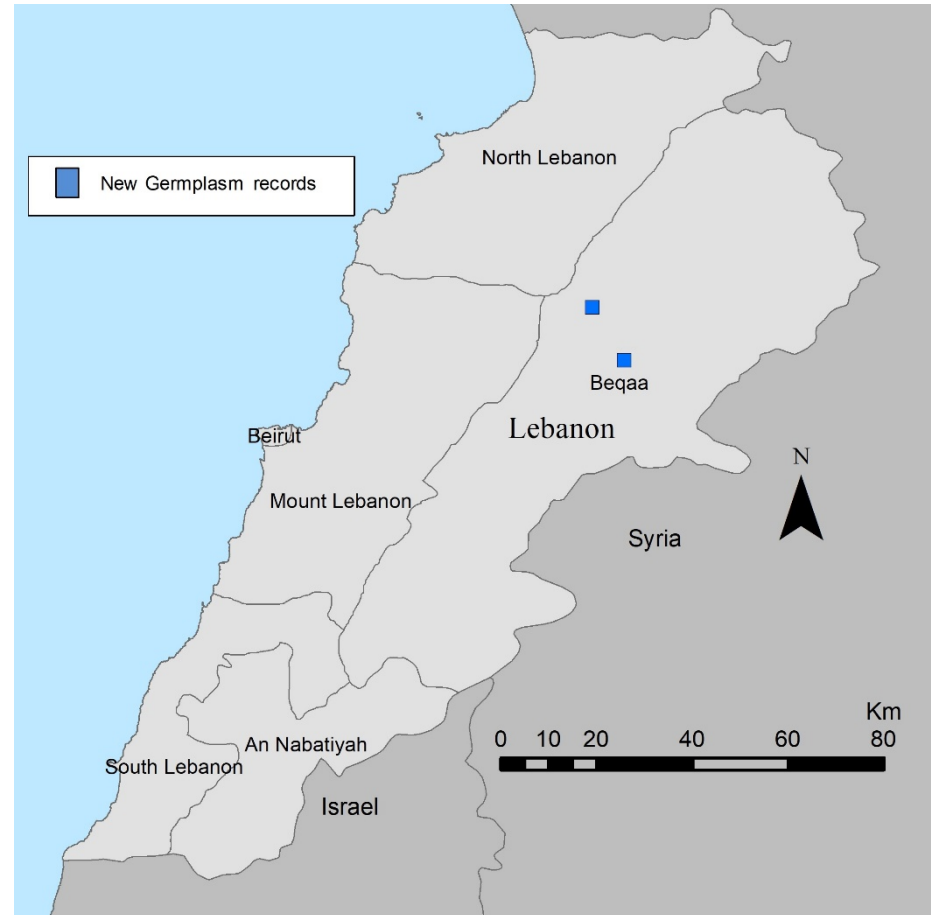
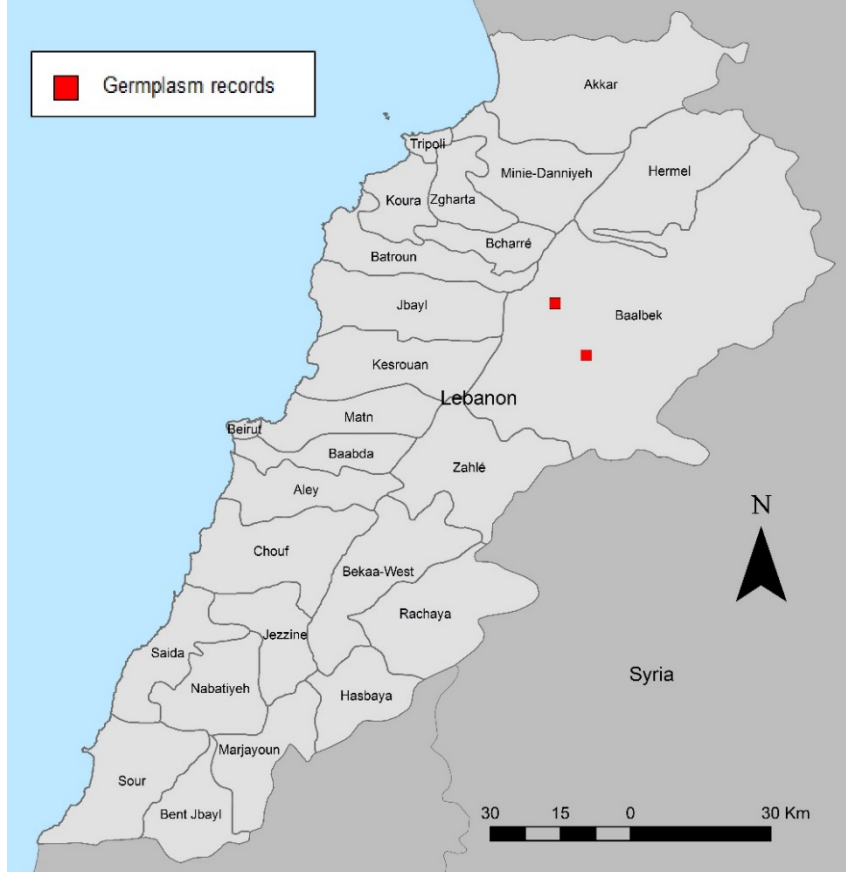


Aegilops kotschy Boiss.

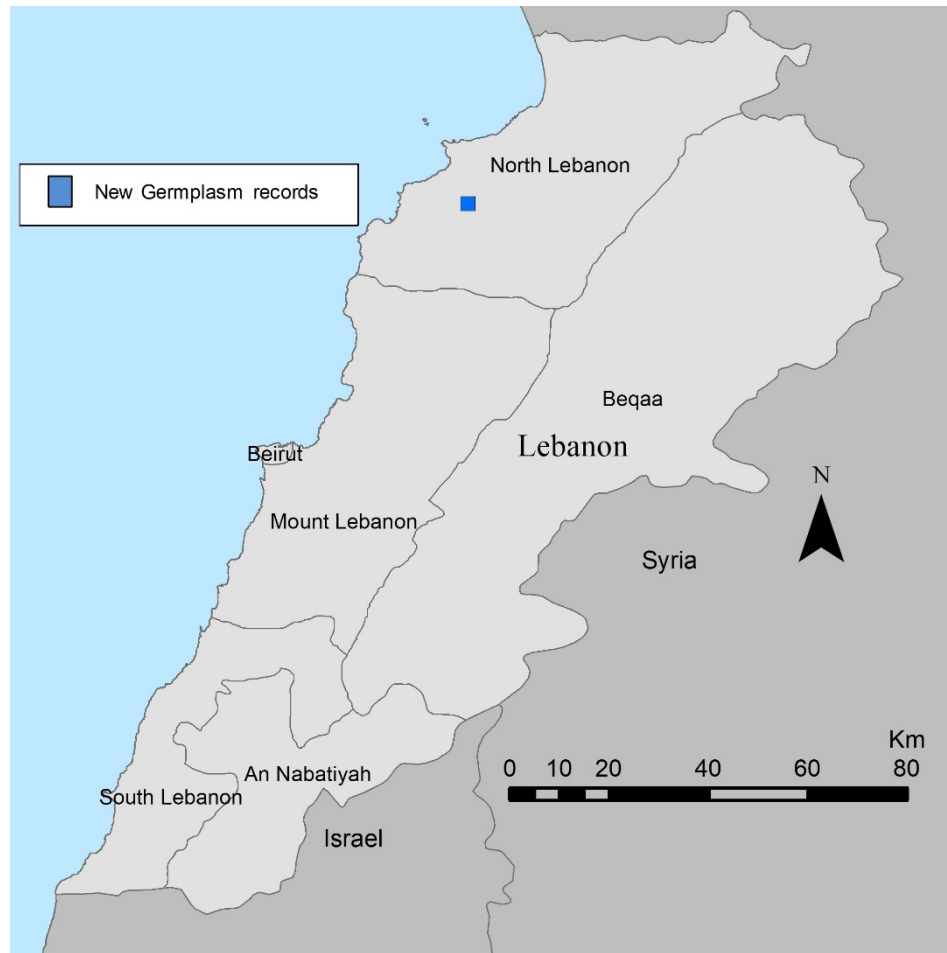


Aegilops markgrafii (Greuter) K. Hammer

Aegilops markgrafii occurrences in Lebanon



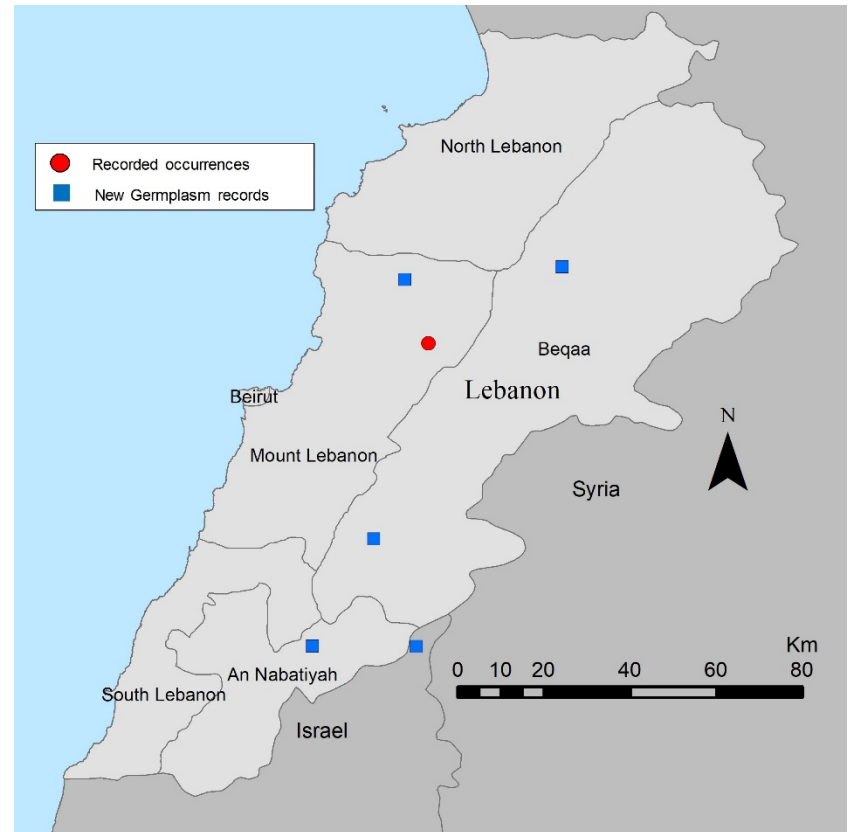
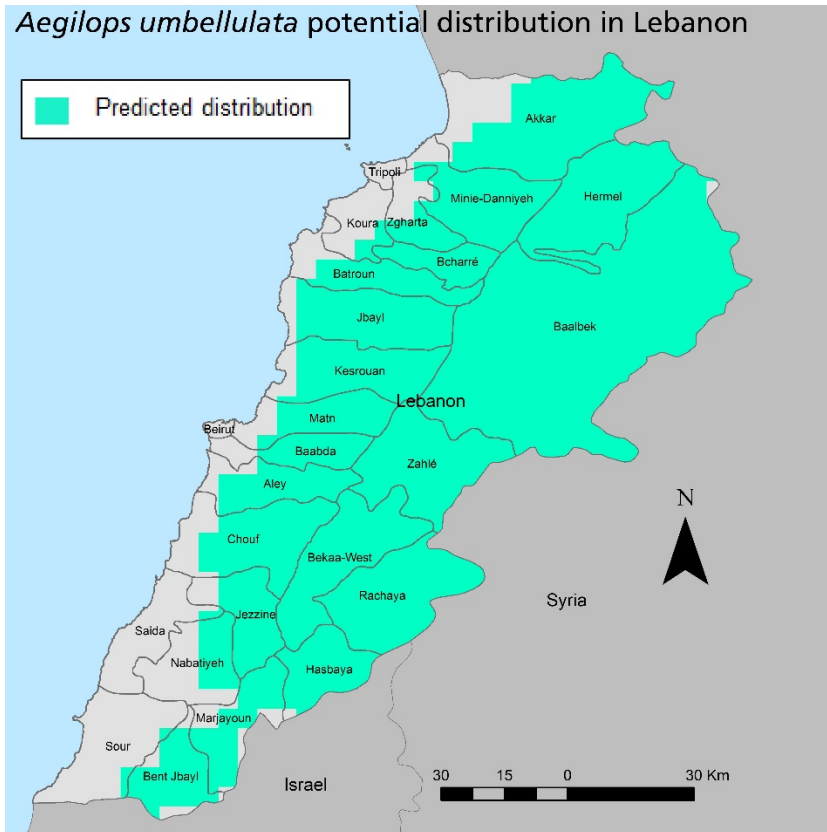
Aegilops speltoides Taush



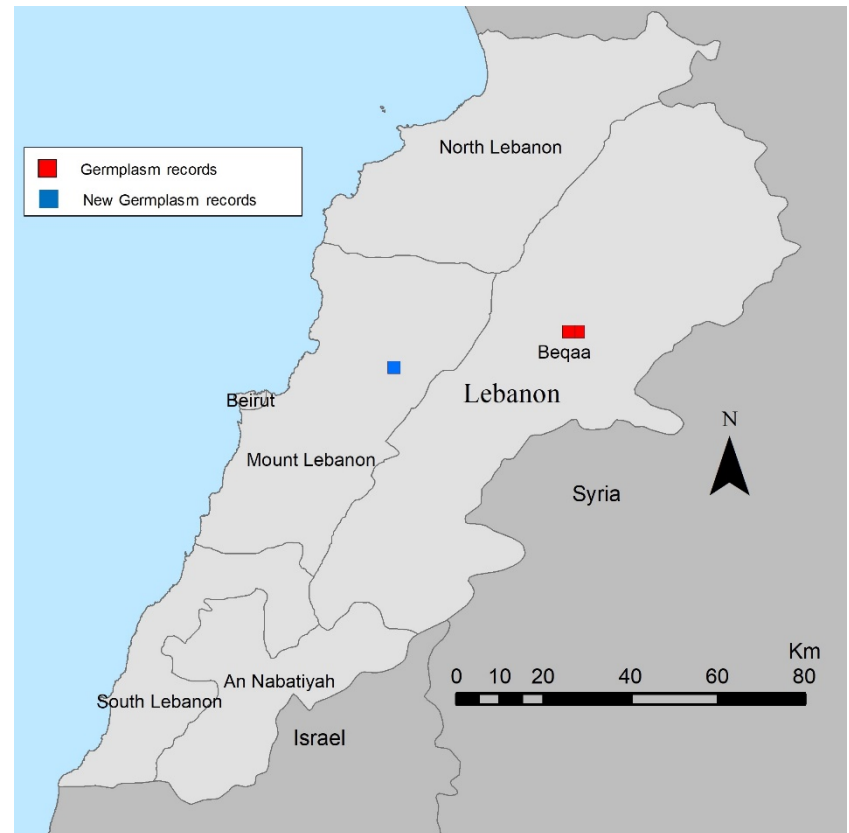
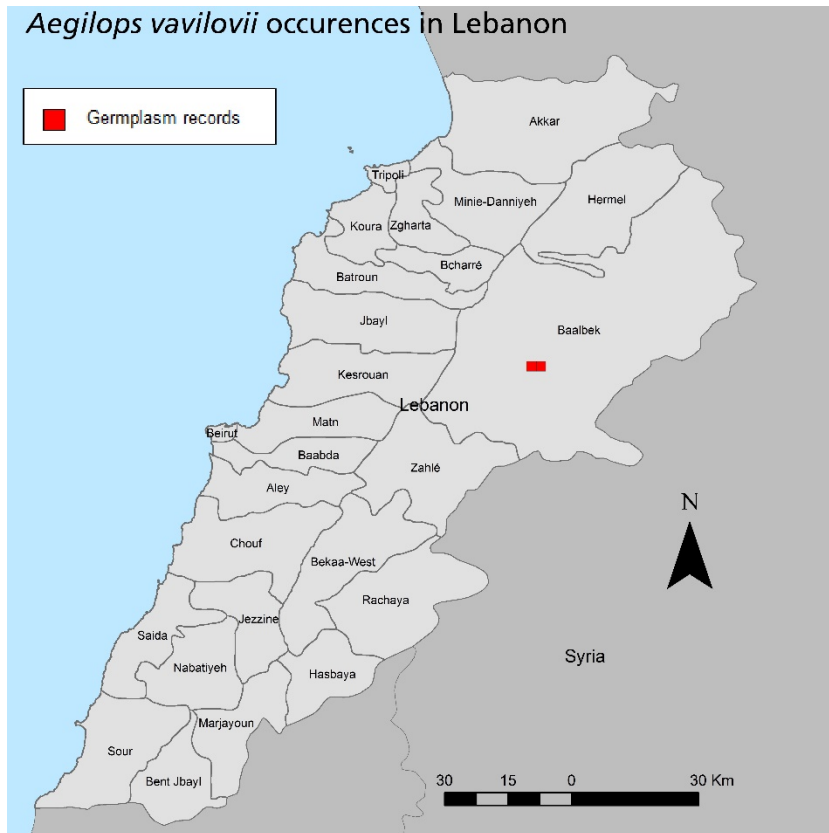
Aegilops searsii Feldman & Kislev ex K. Hammer



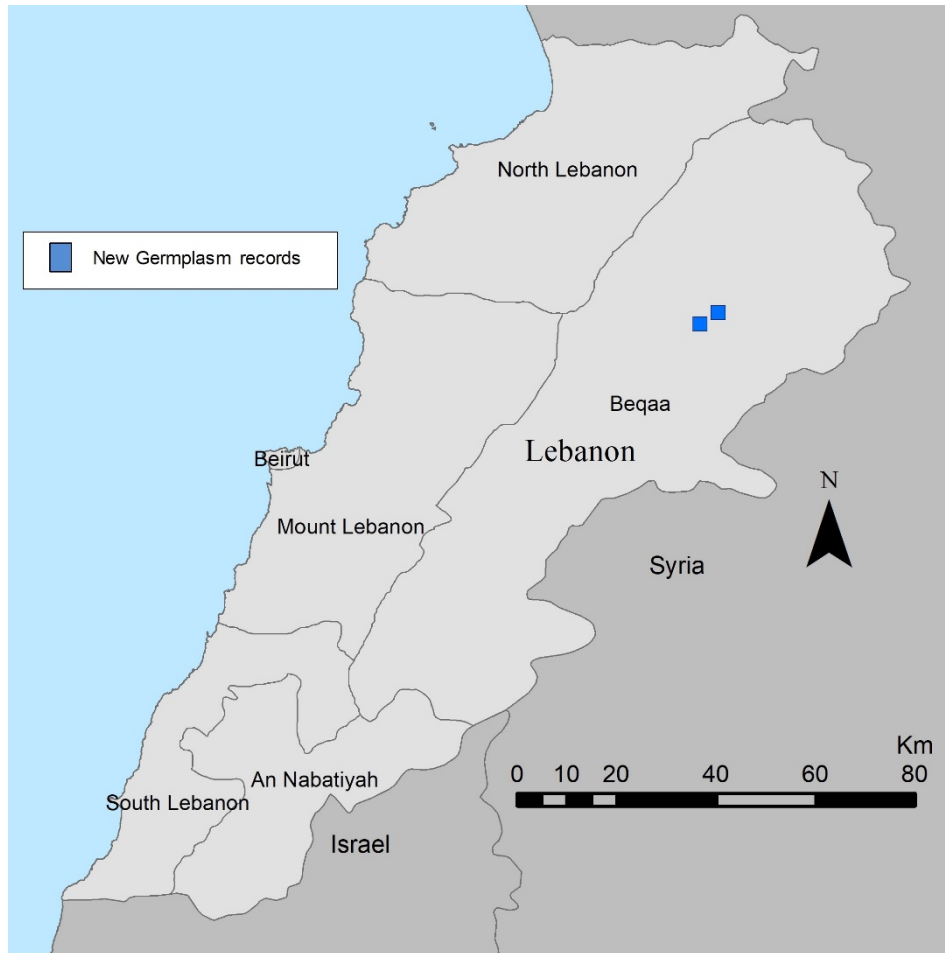
Aegilops umbellulata Zhuk.



Aegilops vavilovii (Zhuk.) Chennav.

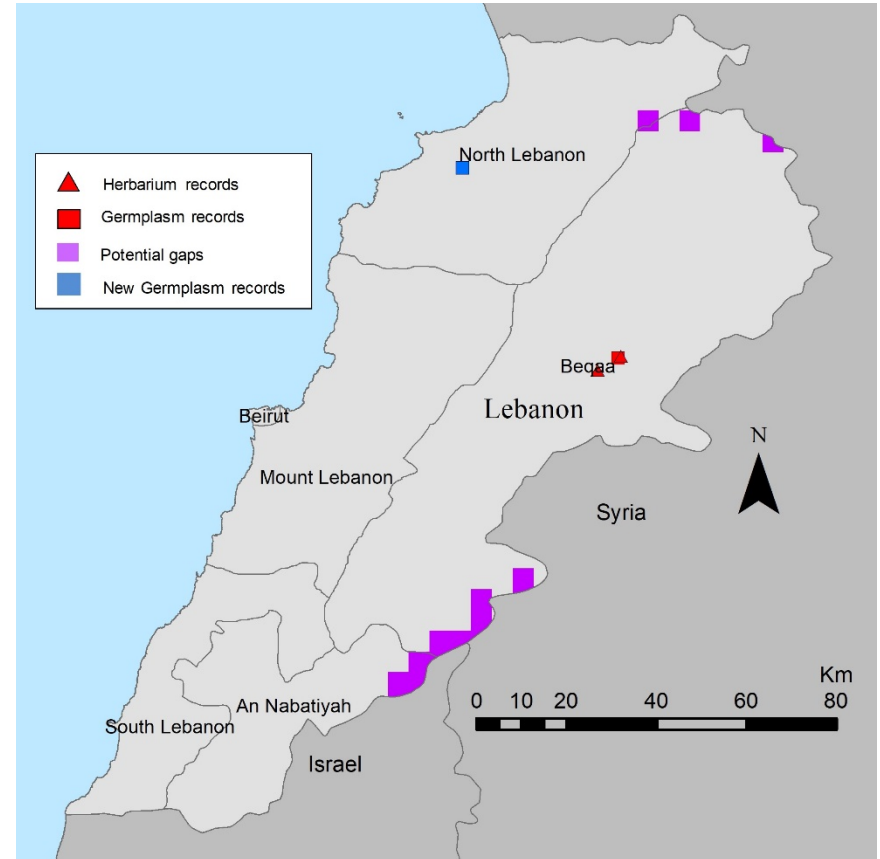
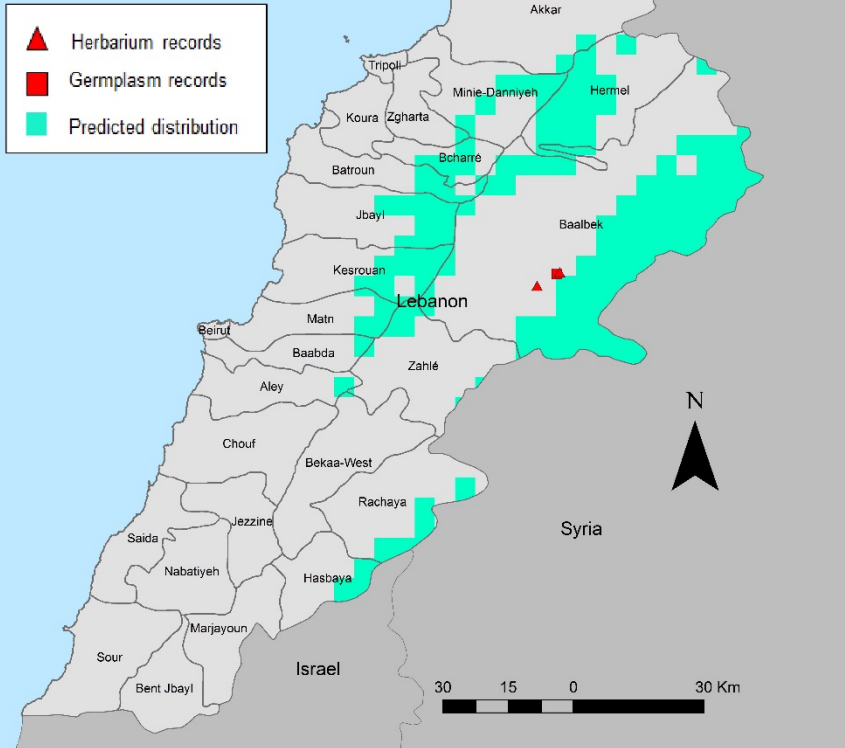


Avena eriantha Durieu

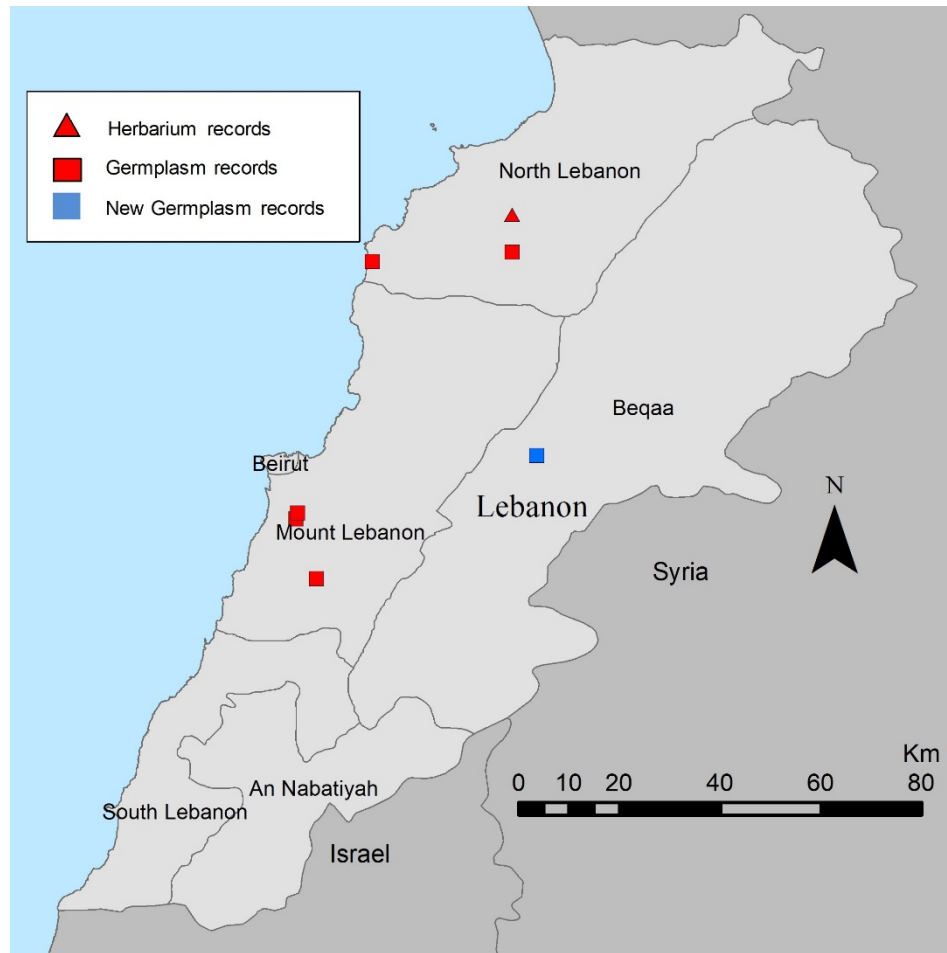


Avena fatua L.

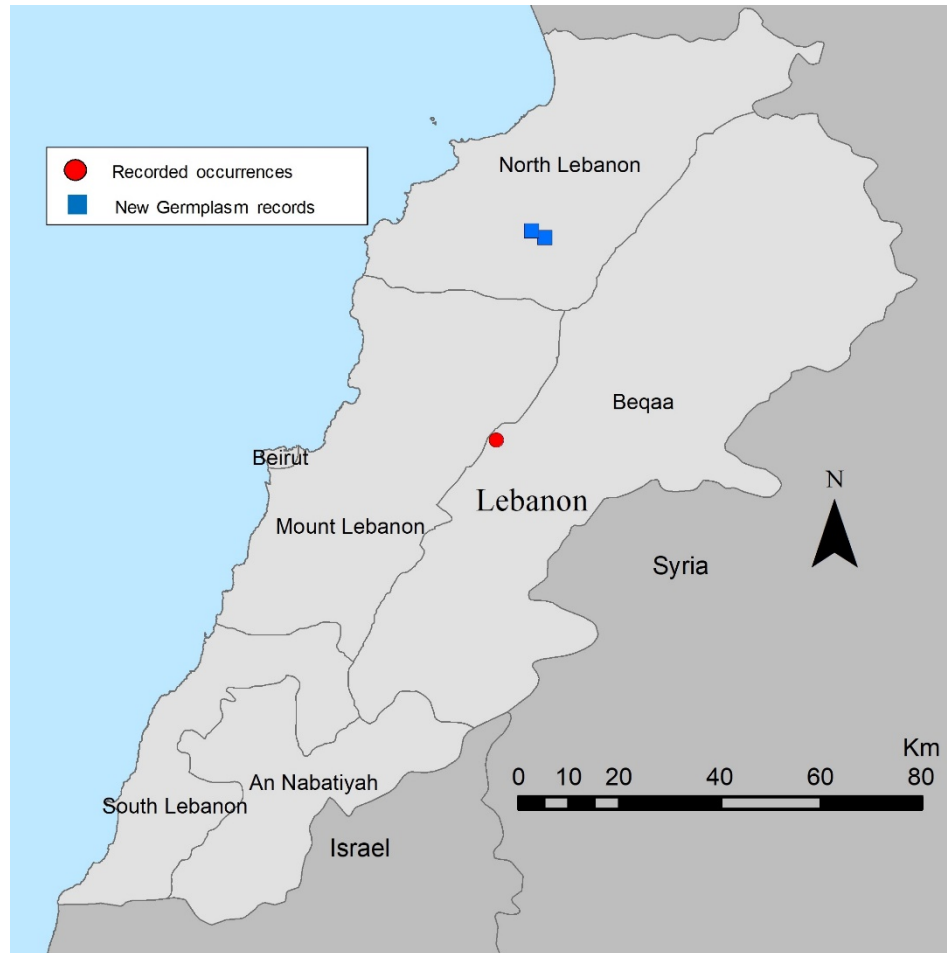
Avena fatua occurrences and potential distribution in Lebanon



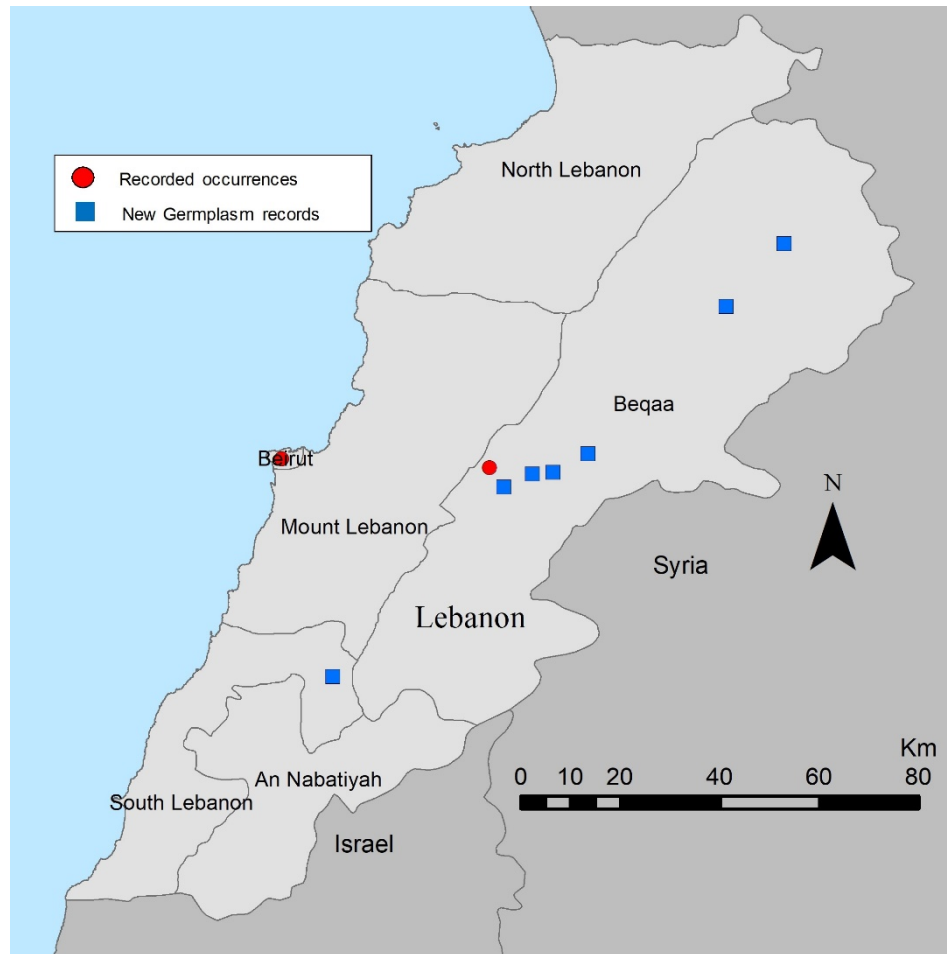
Cicer judaicum Boiss.



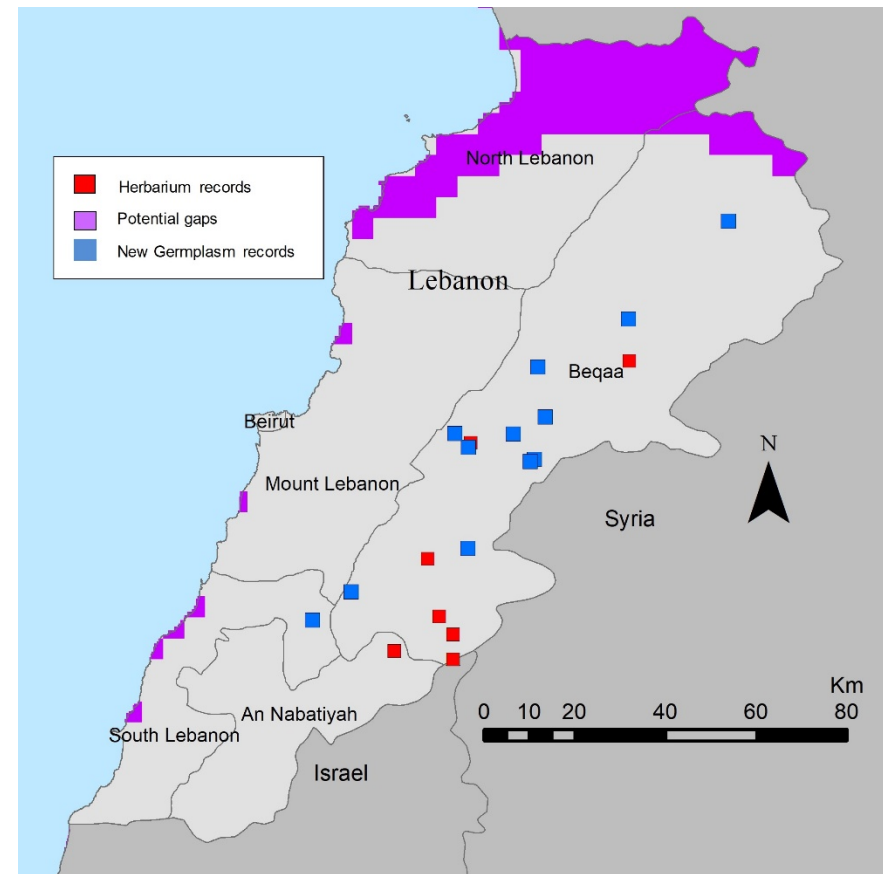
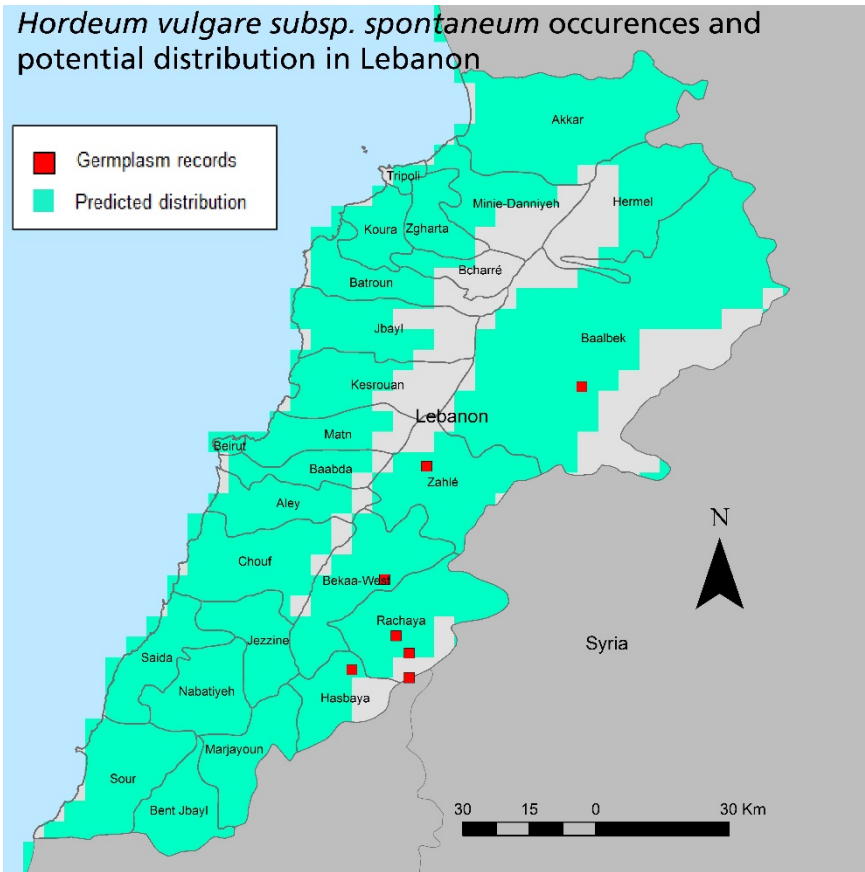
Hordeum marinum Hudson



Hordeum murinum L.



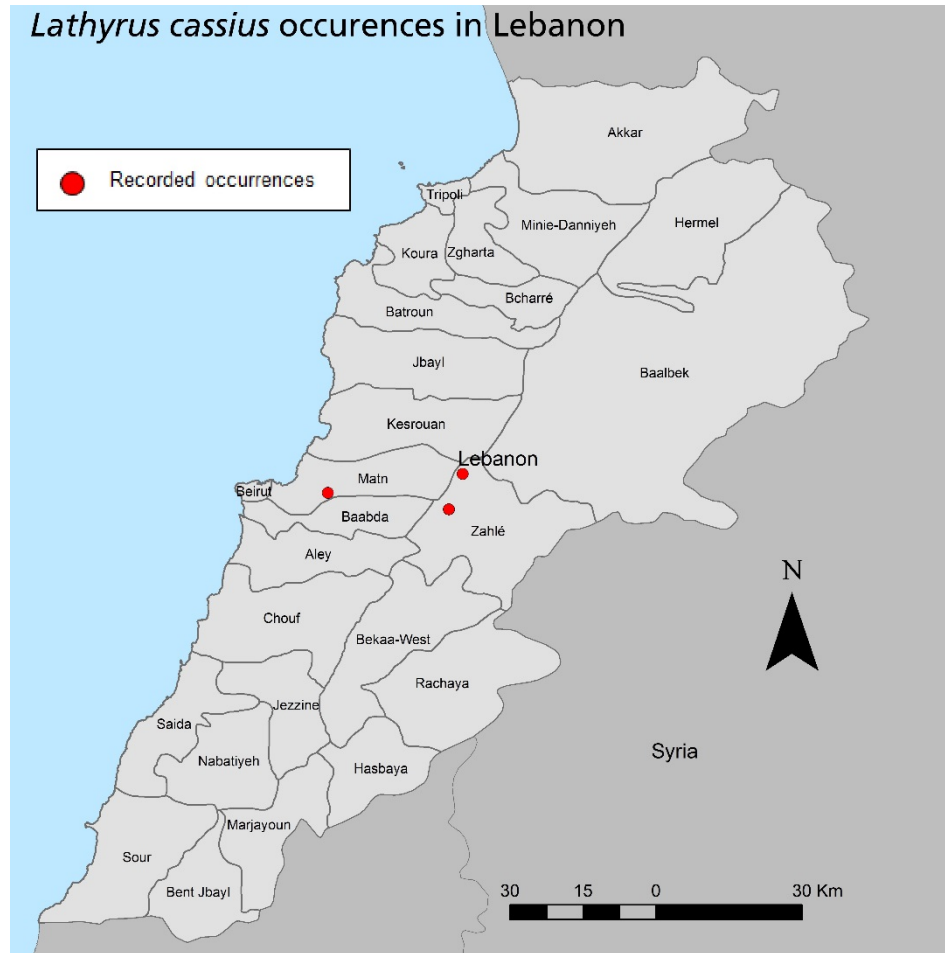
Hordeum vulgare subsp. spontaneum (C. Koch.) Thell.



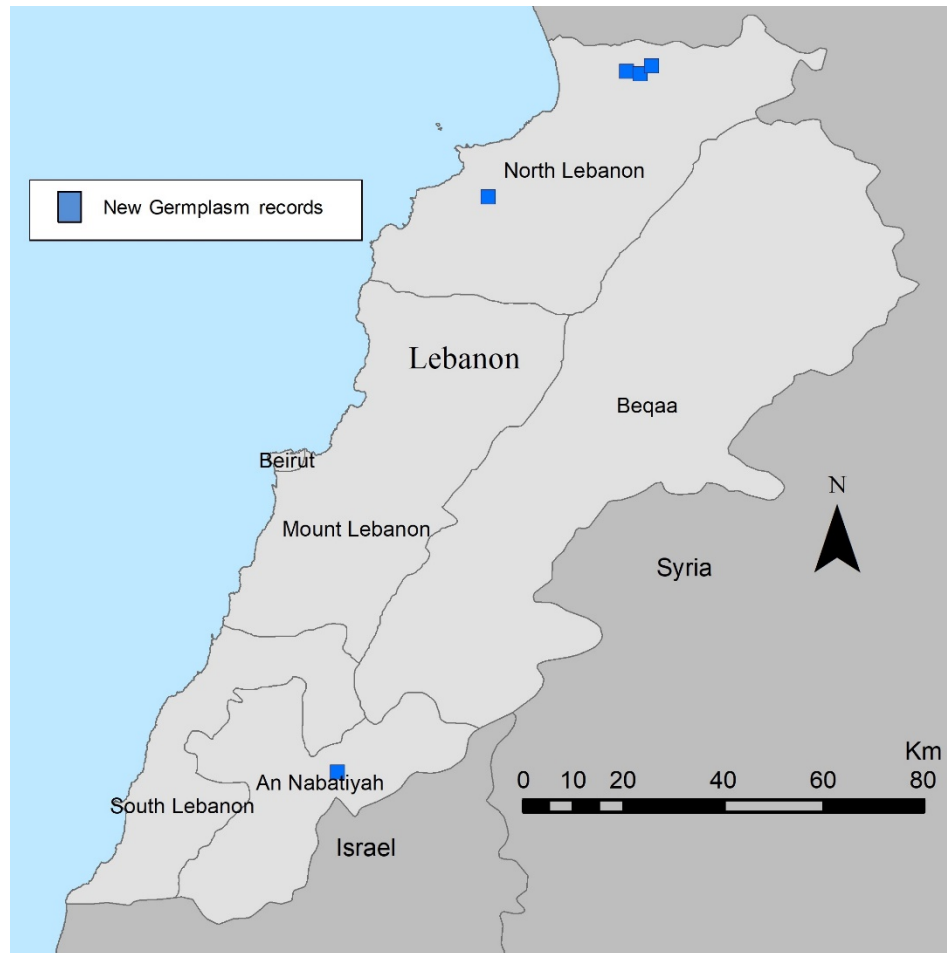
Lathyrus blepharicarpus Boiss.



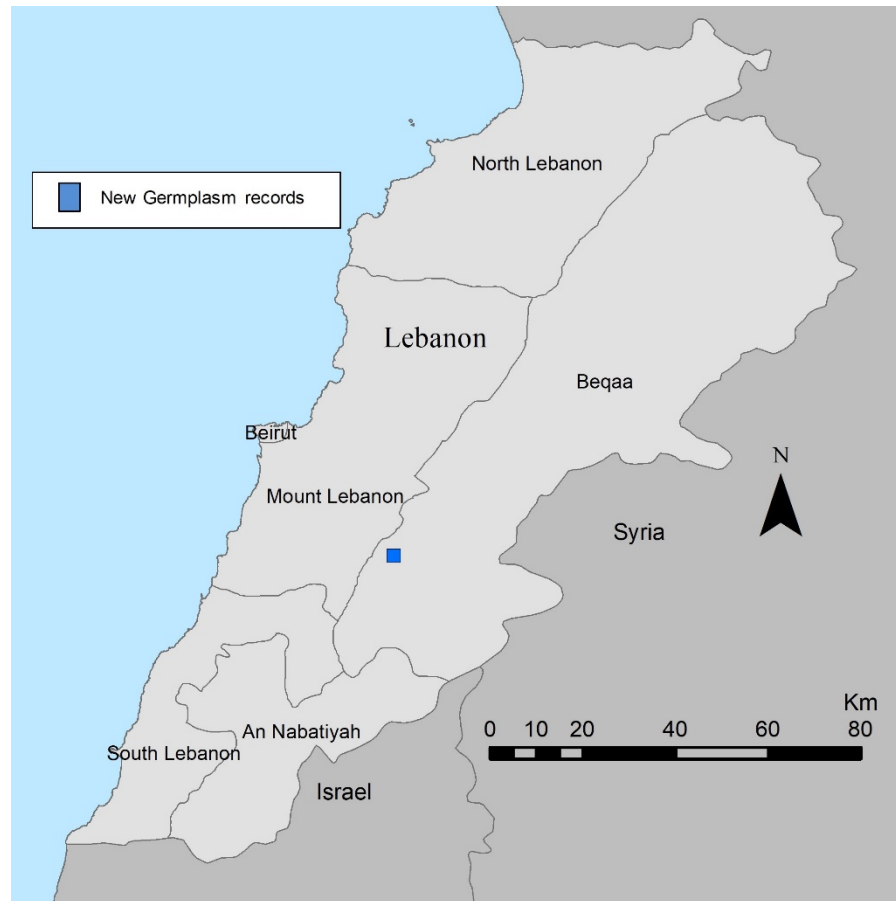
Lathyrus cassius Boiss.



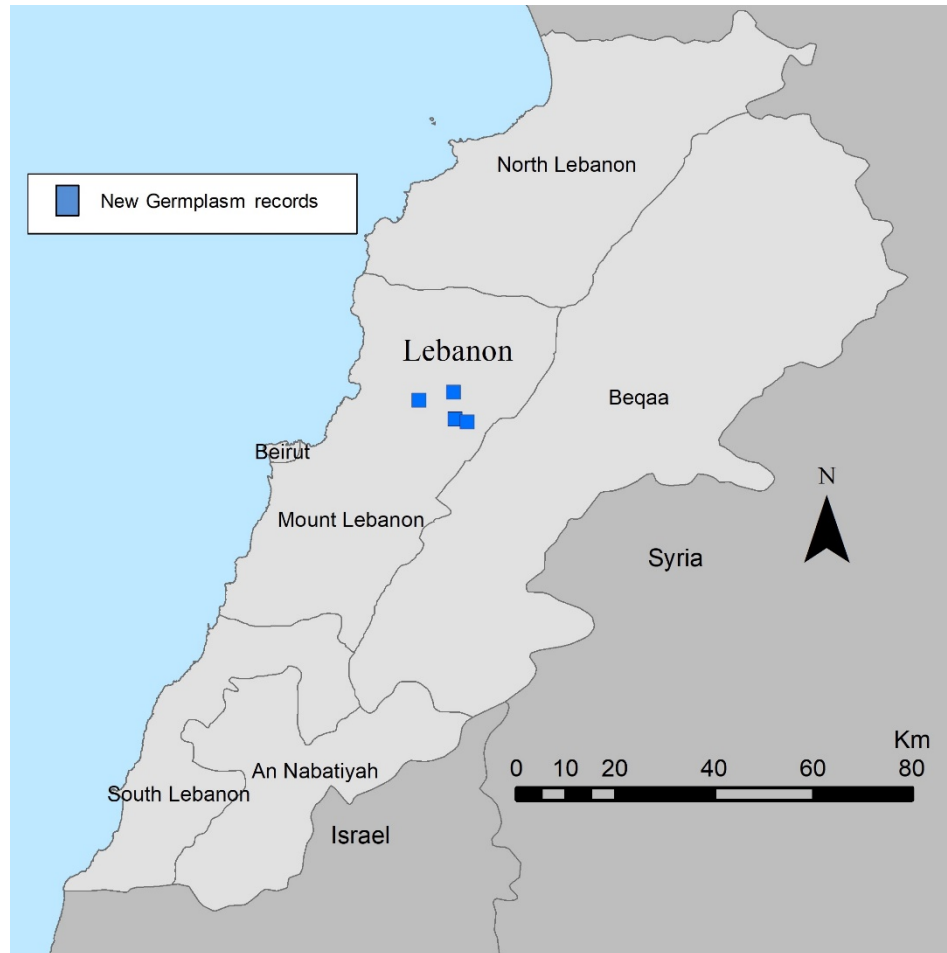
Lathyrus cicera L.



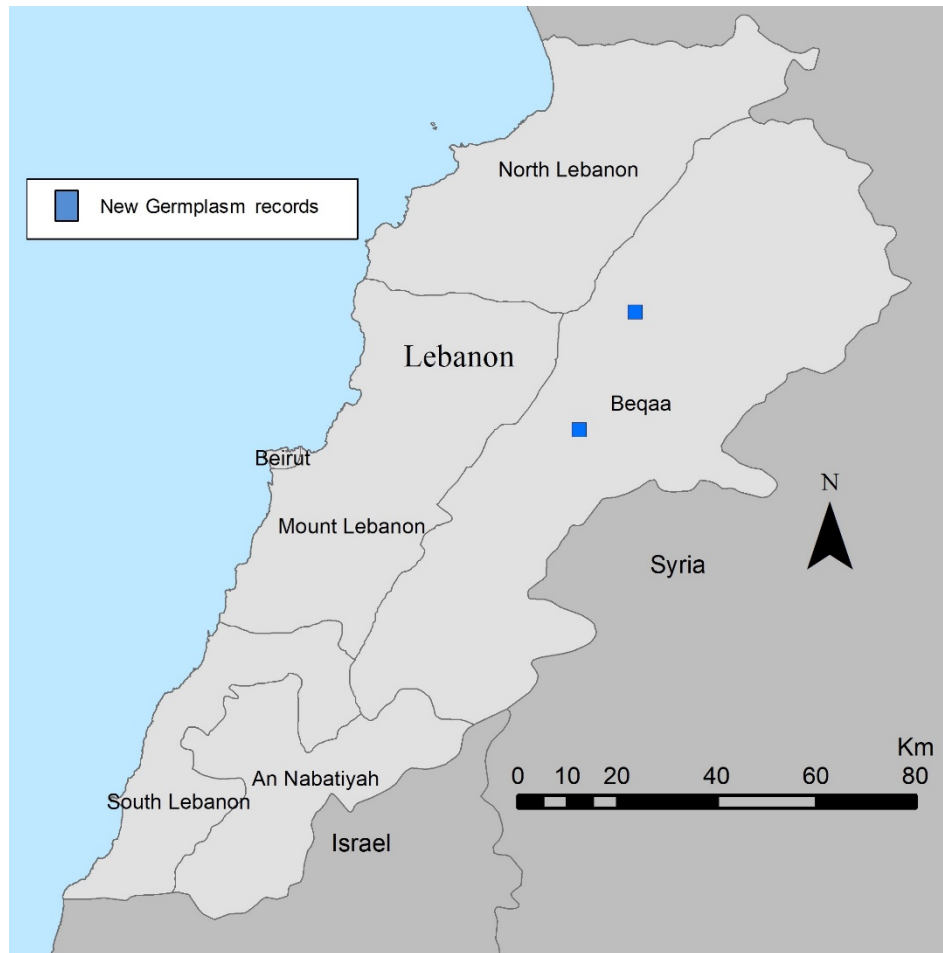
Lathyrus gorgoni Parl.



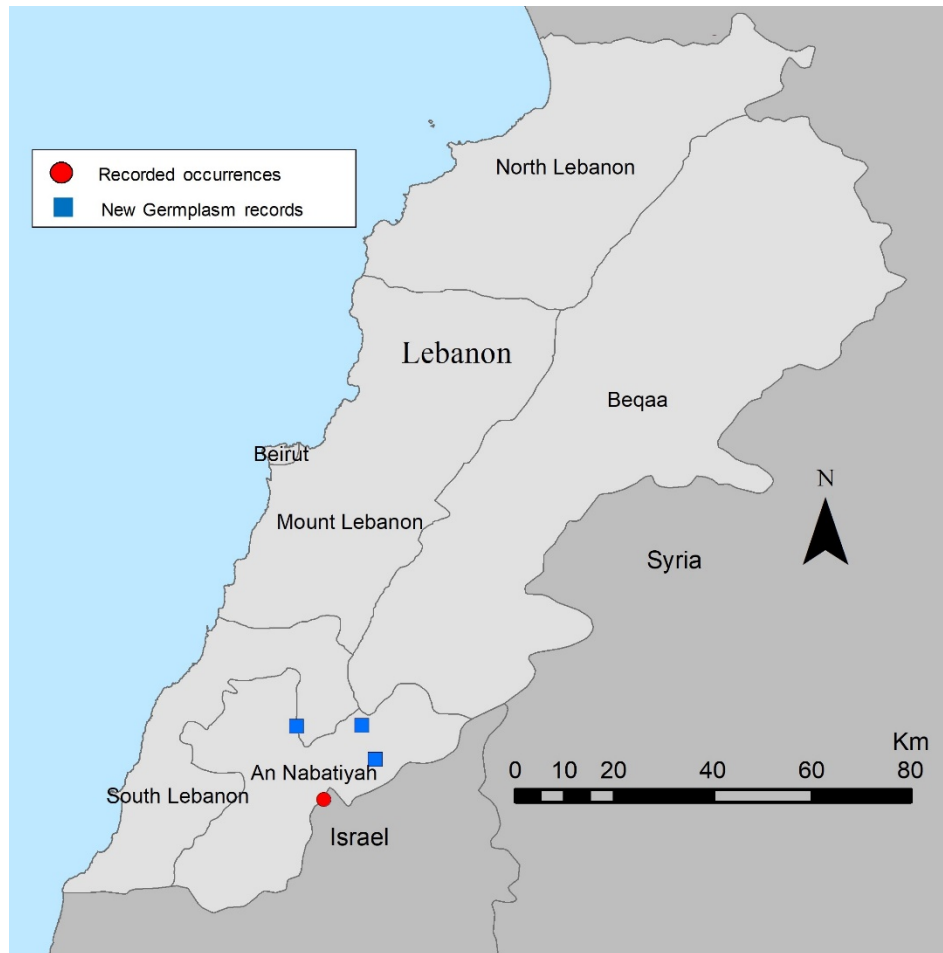
Lathyrus hirsutus L.



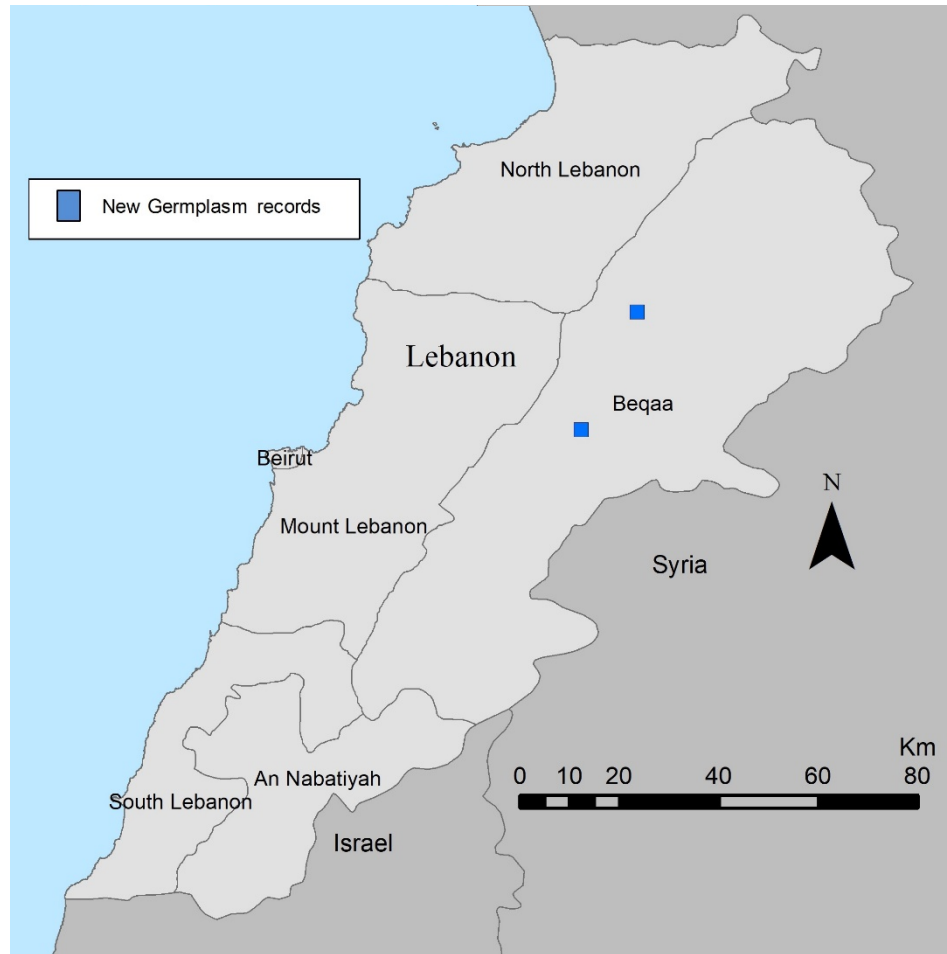
Lathyrus marmortus Boiss. & Balansa



Lathyrus ochrus (L.) DC.



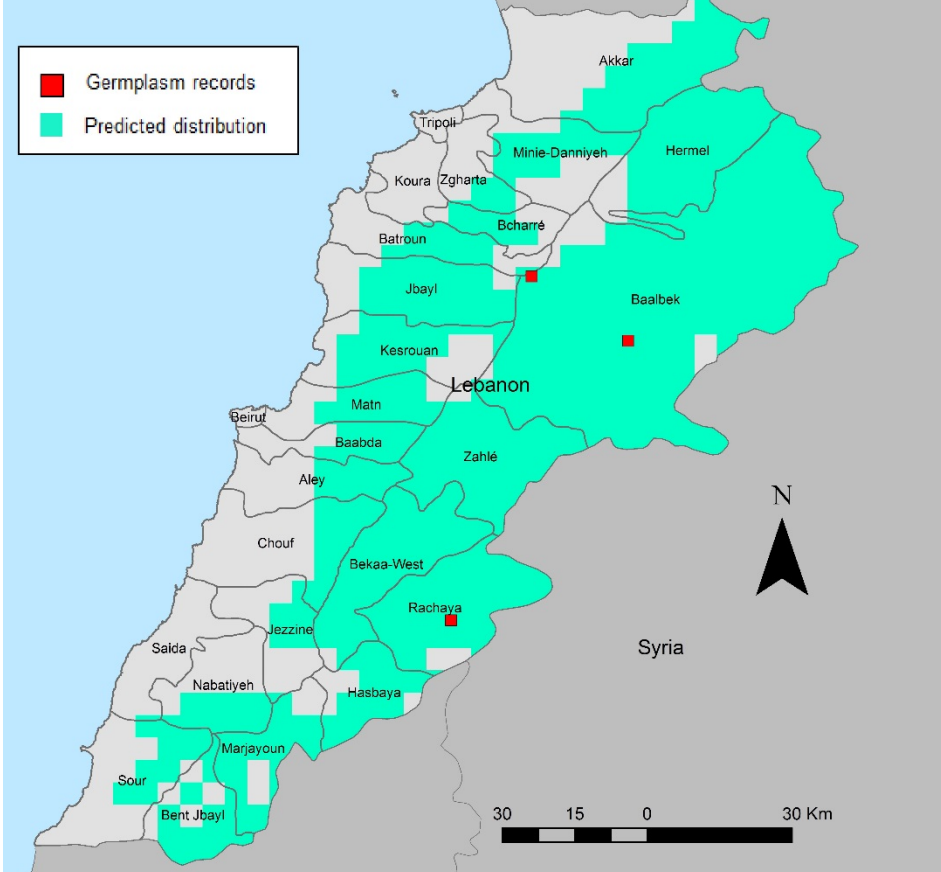
Lathyrus pseudocicera Pamp.



Lens culinaris subsp. *orientalis* (Boiss.)

Ponert

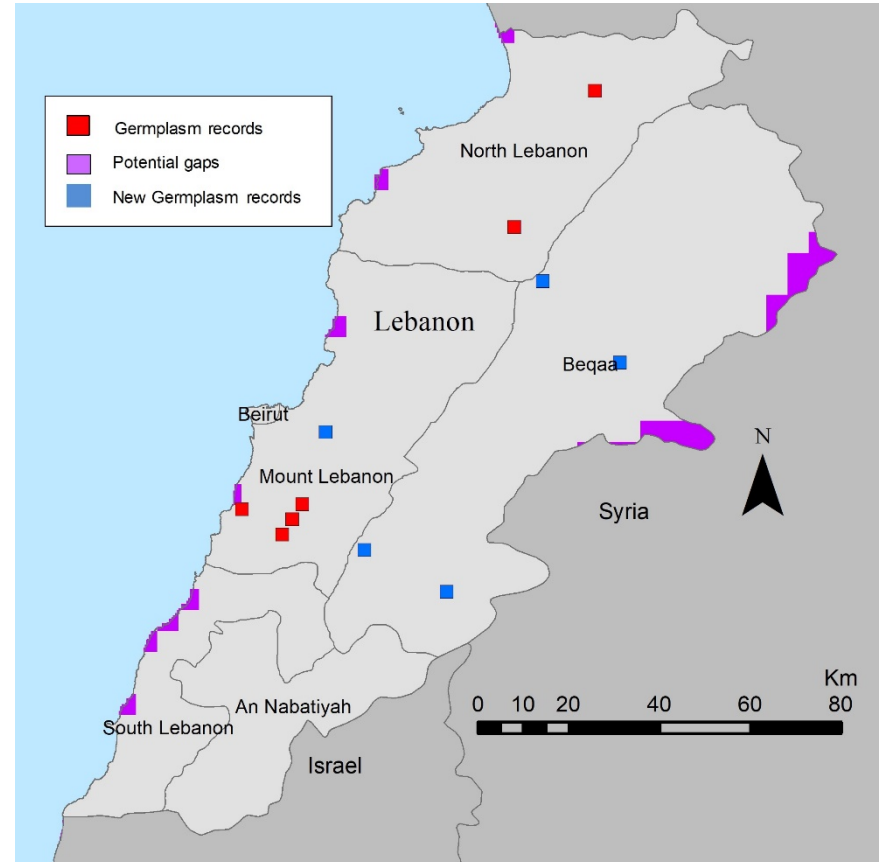
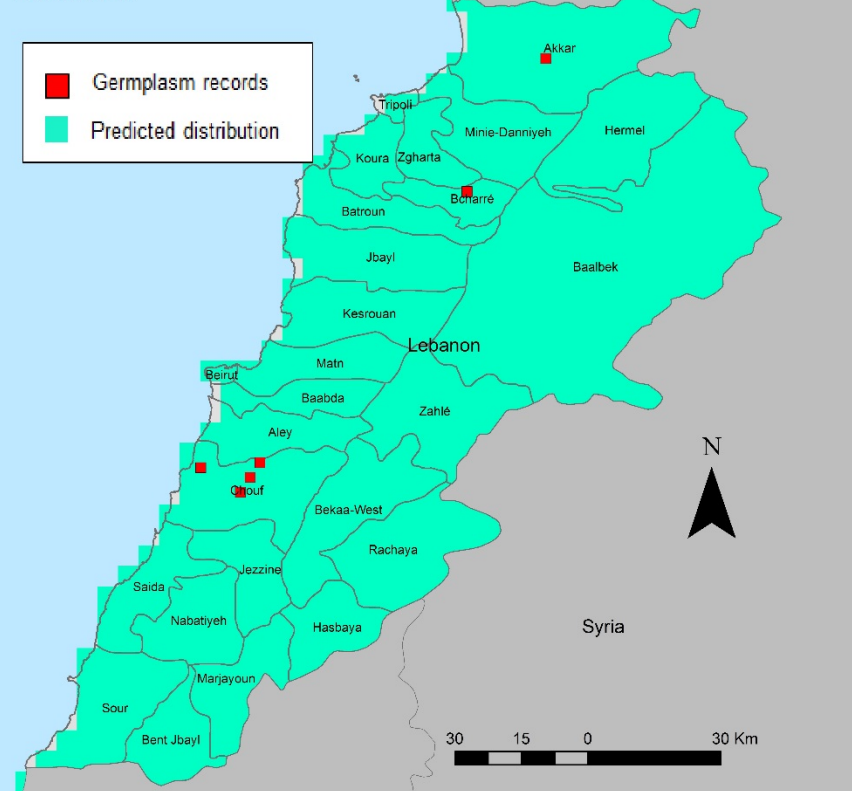
Lens culinaris subsp. *orientalis* occurrences and potential distribution in Lebanon



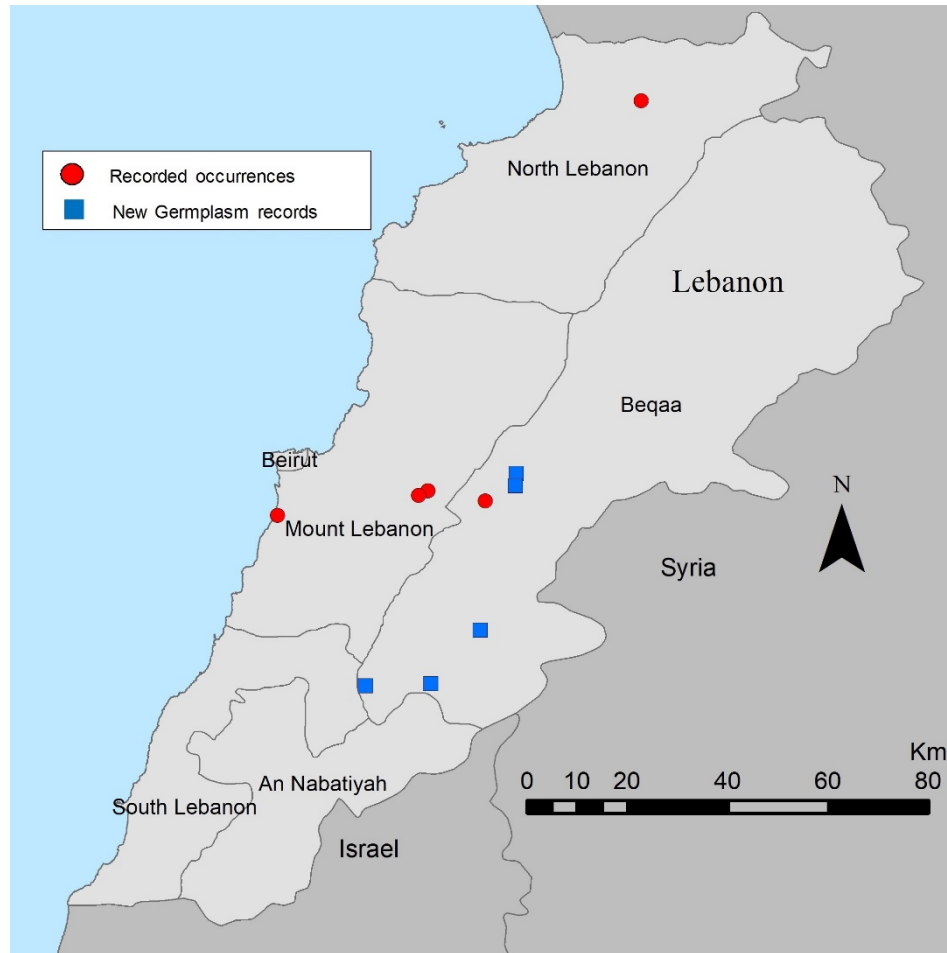
Focus collections in areas of potential distribution along coastal districts.

Lens ervoides (Brign.) Grande

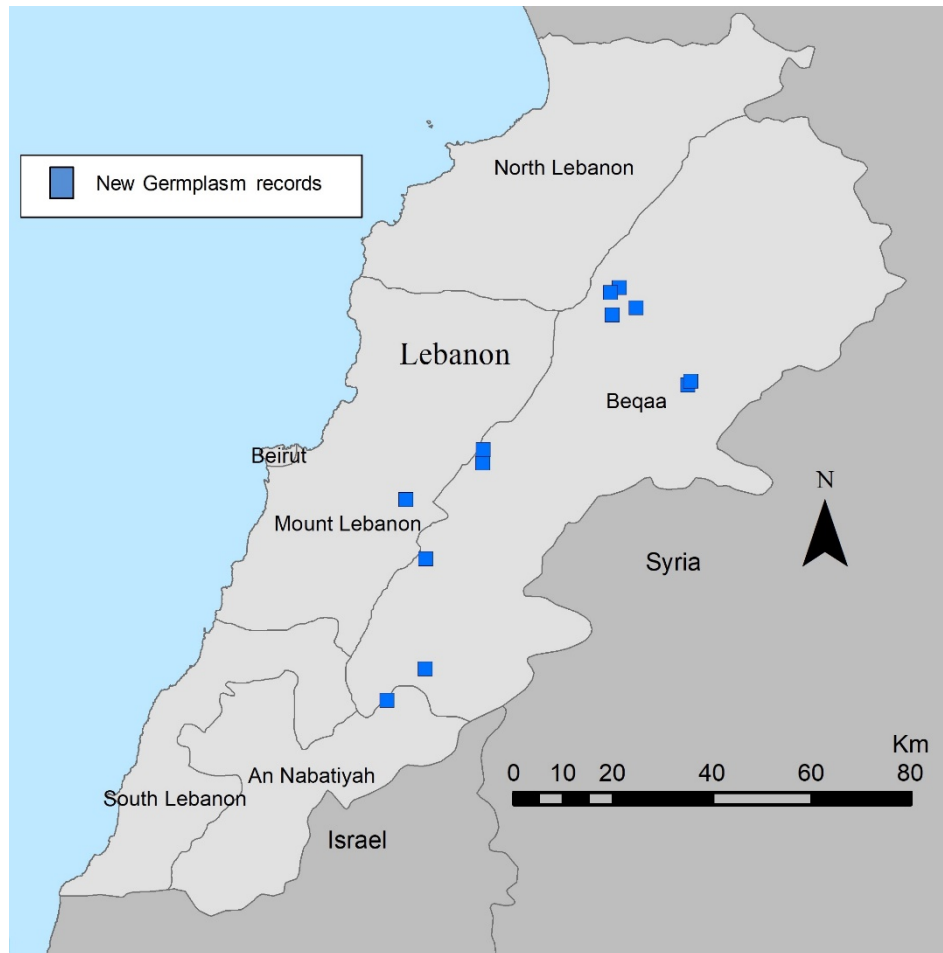
Lens ervoides occurrences and potential distribution in Lebanon



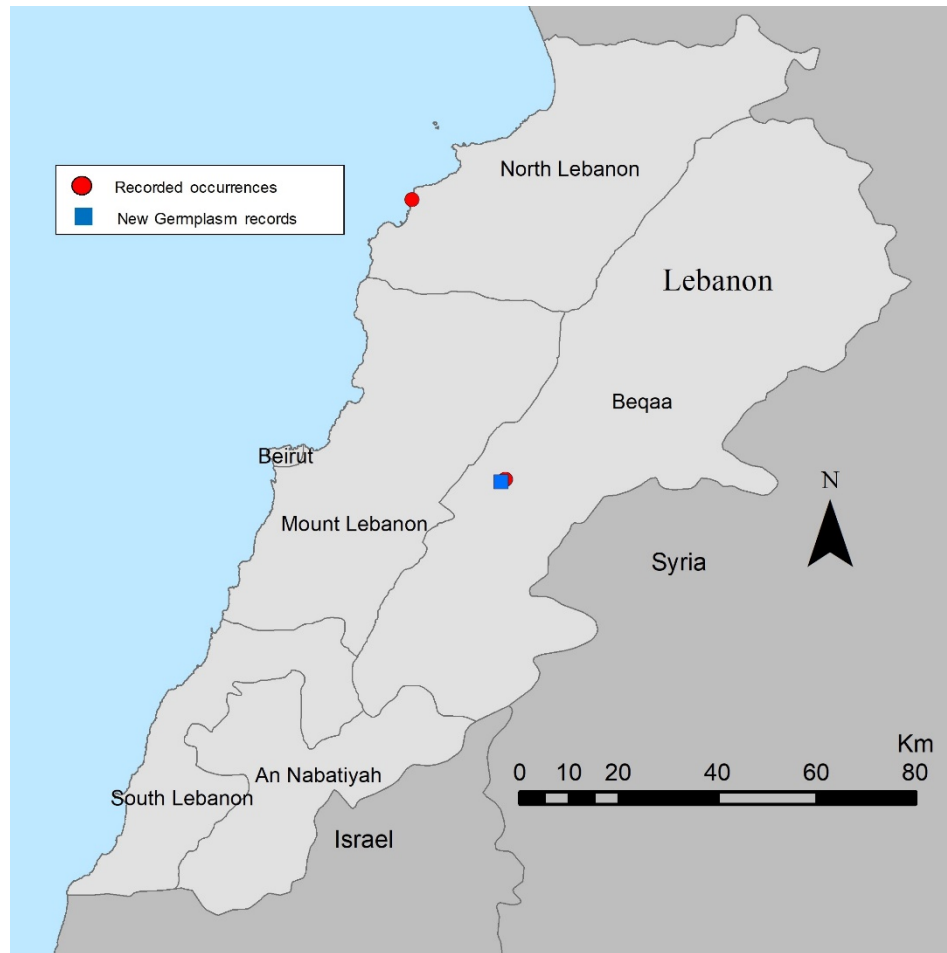
Medicago constricta Durieu



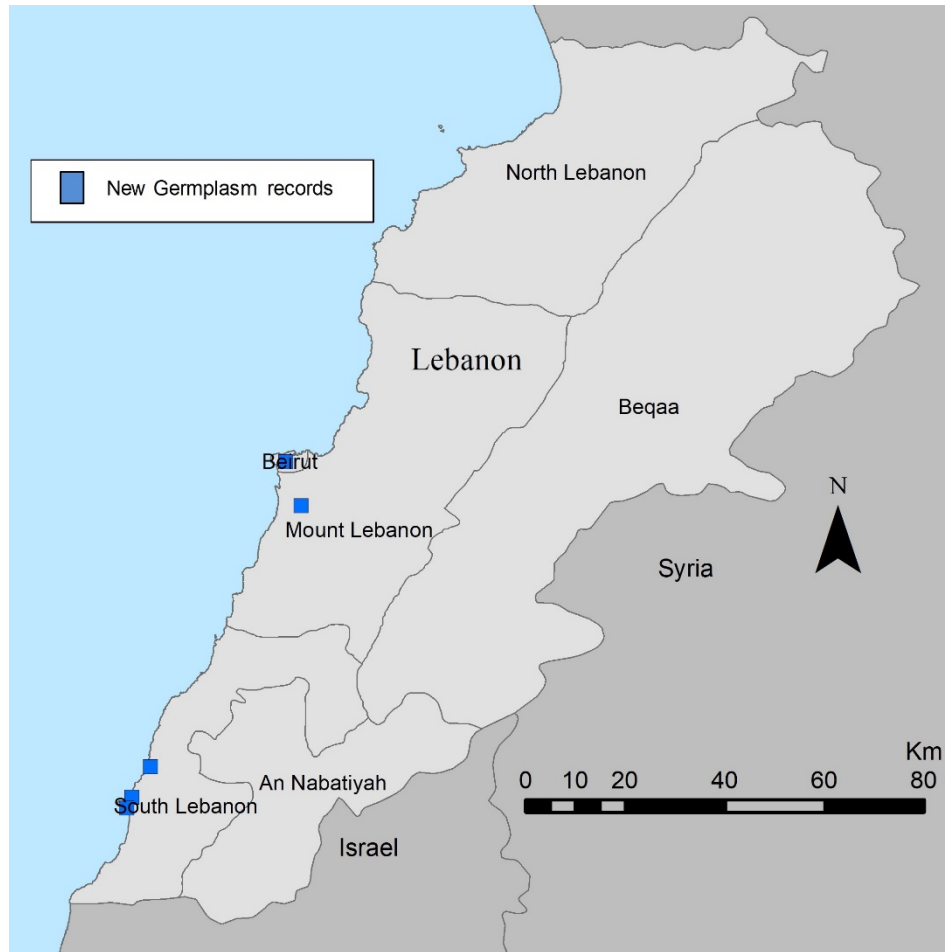
Medicago doliata Carmign.



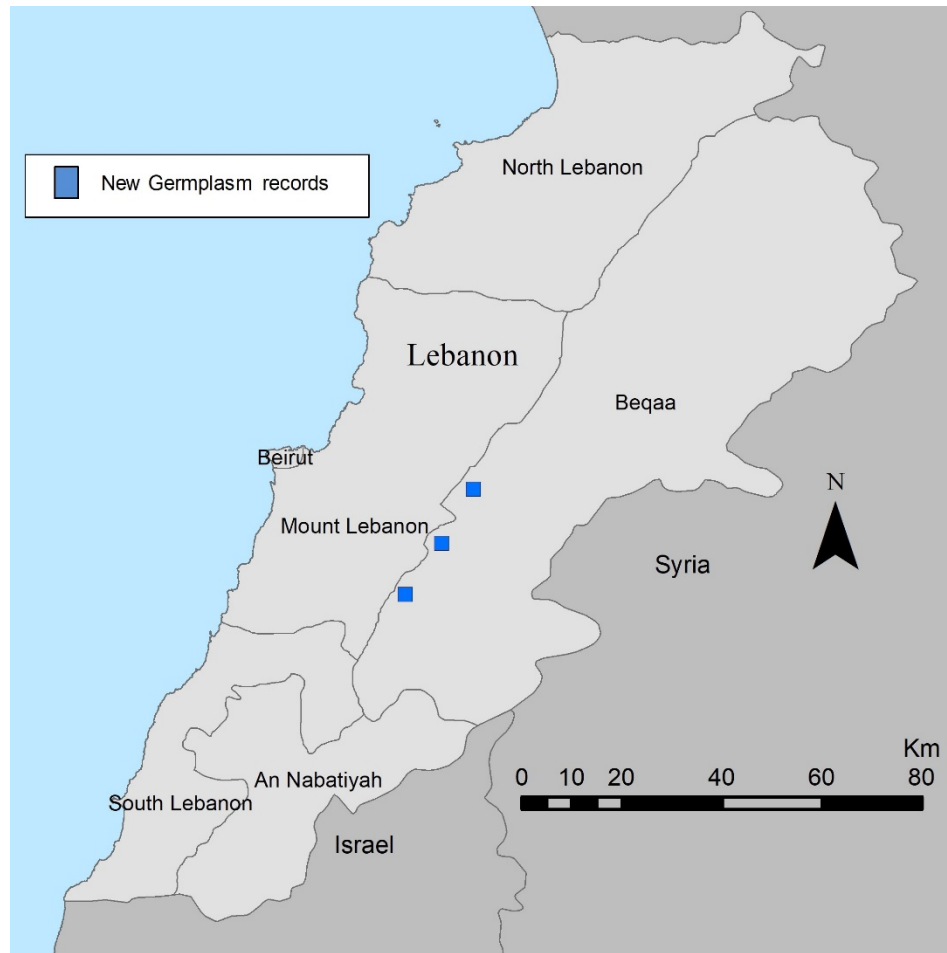
Medicago littoralis Loisel.



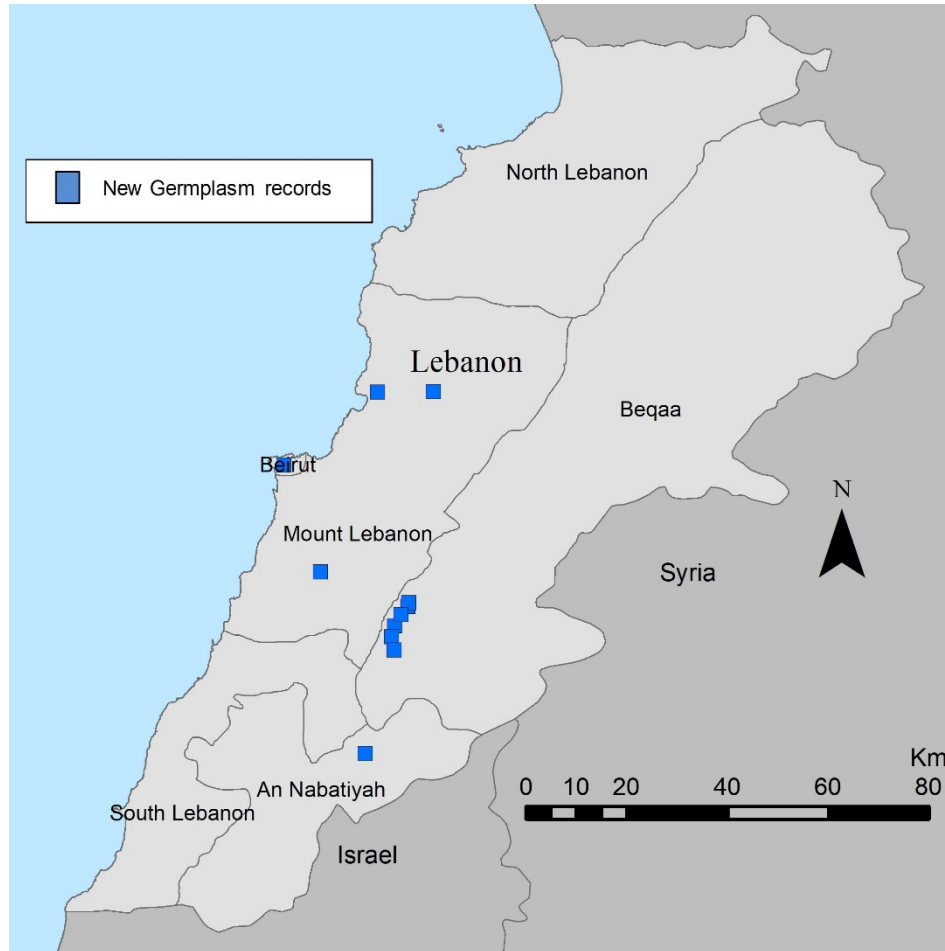
Medicago marina L.



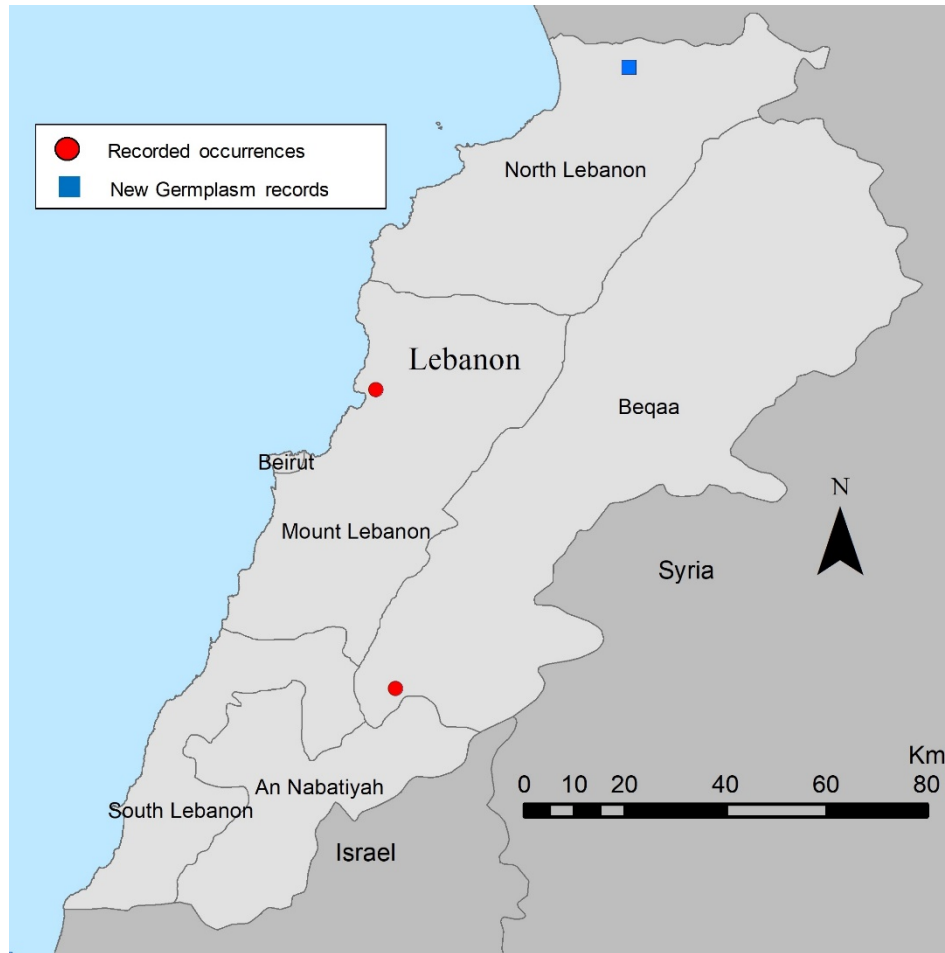
Medicago murex Willd.



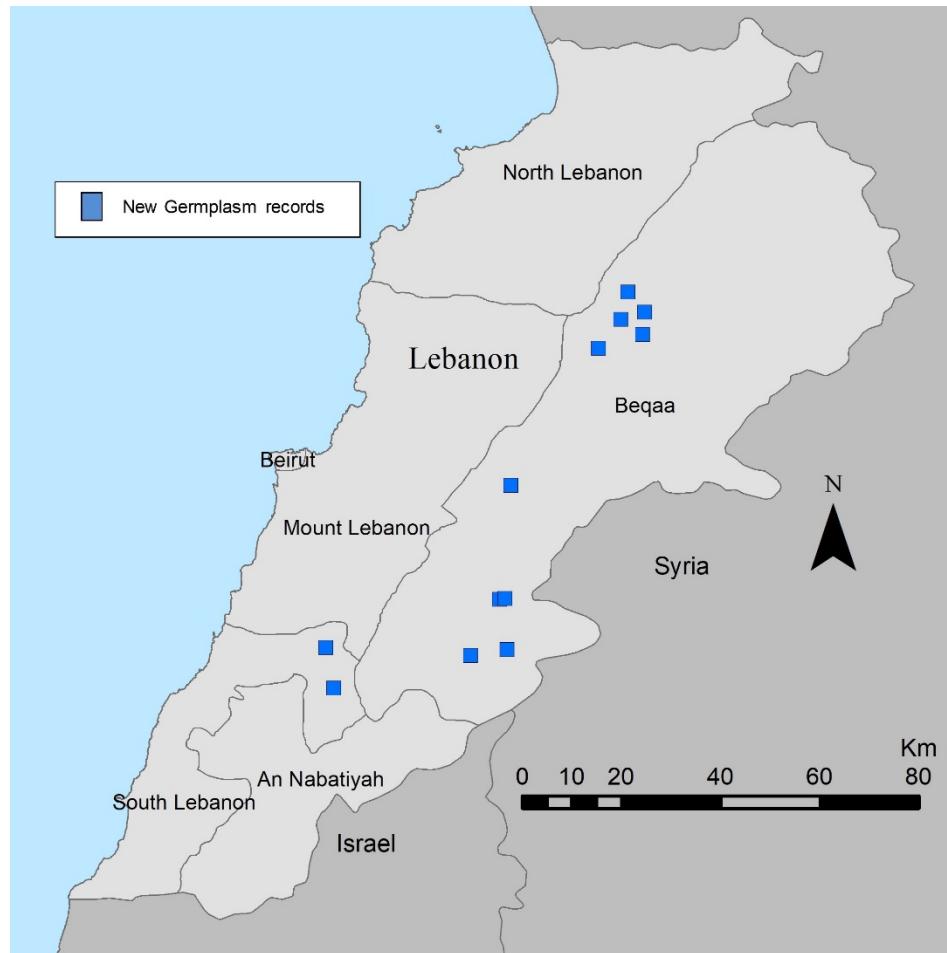
Medicago rugosa Desr.



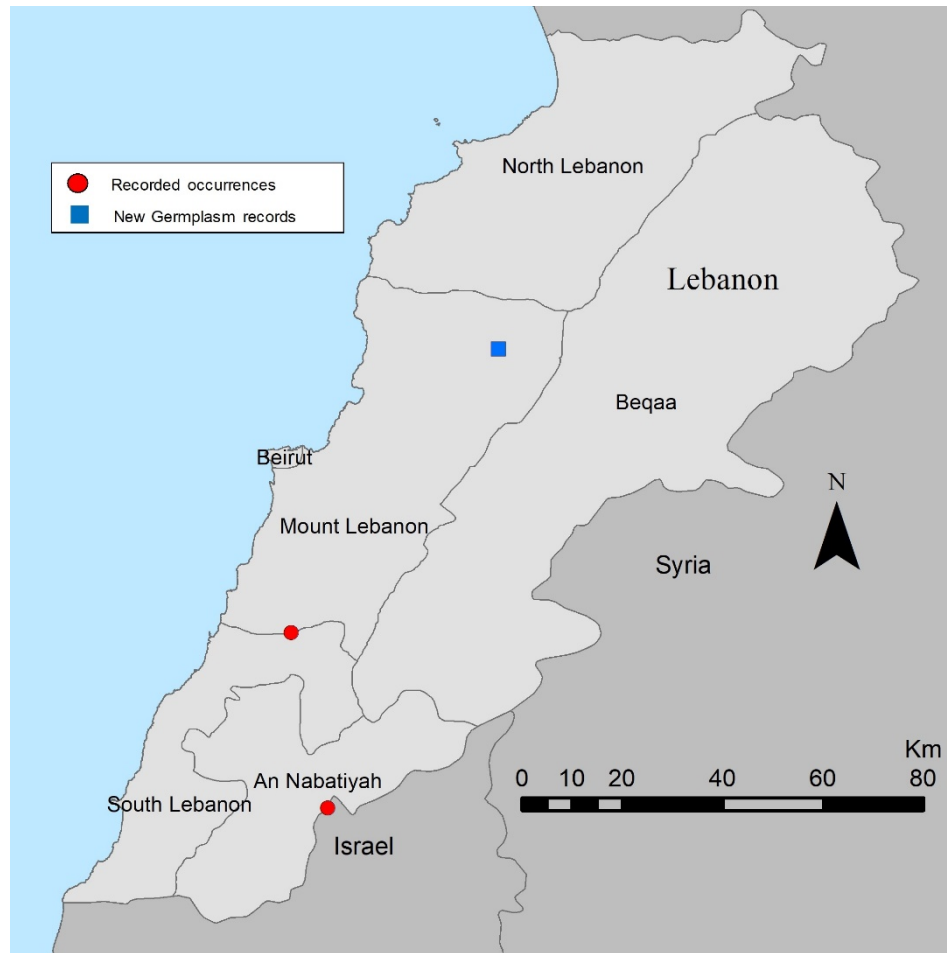
Medicago scutellata (L.) Mill.



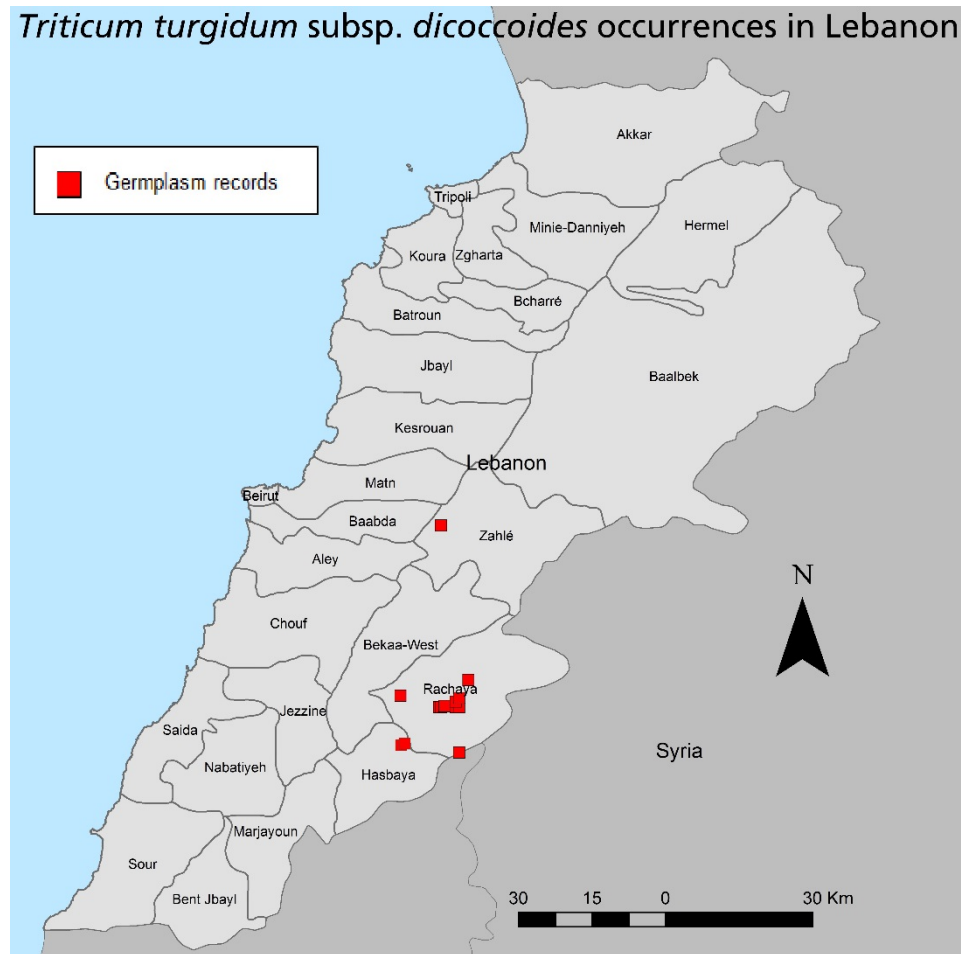
Medicago truncatula Gaertn.



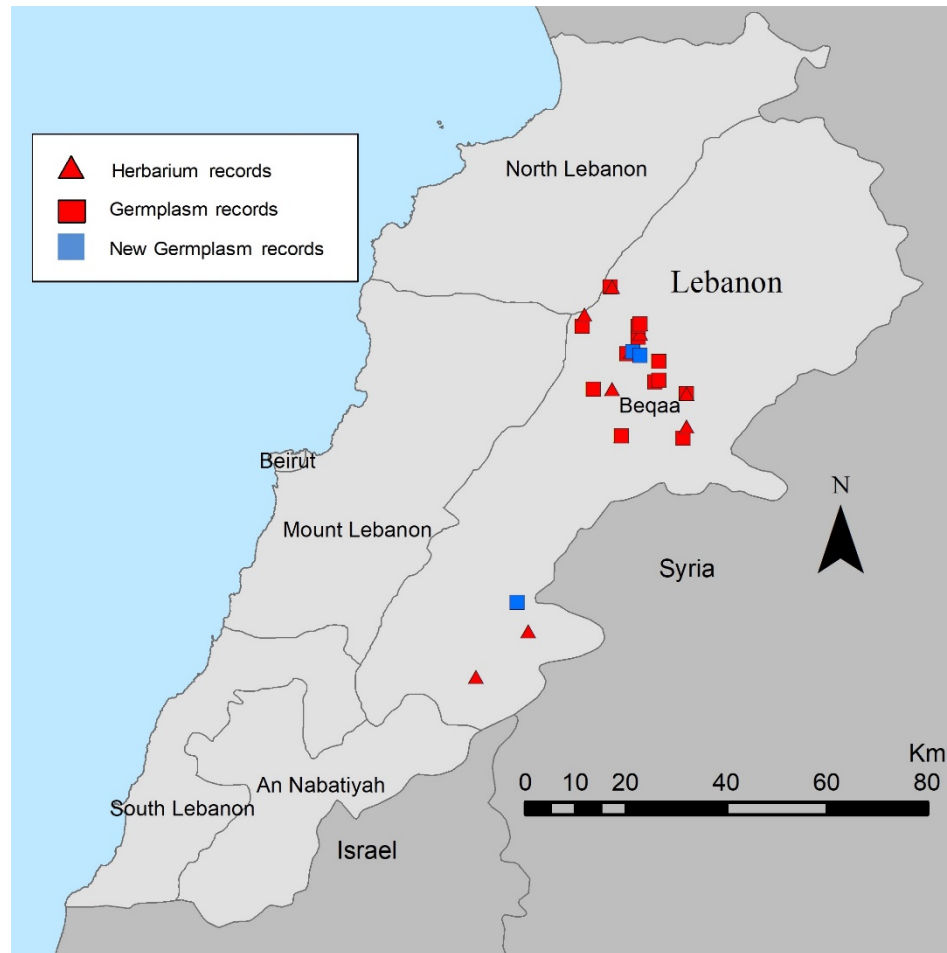
Pisum fulvum Sibth. & Sm.



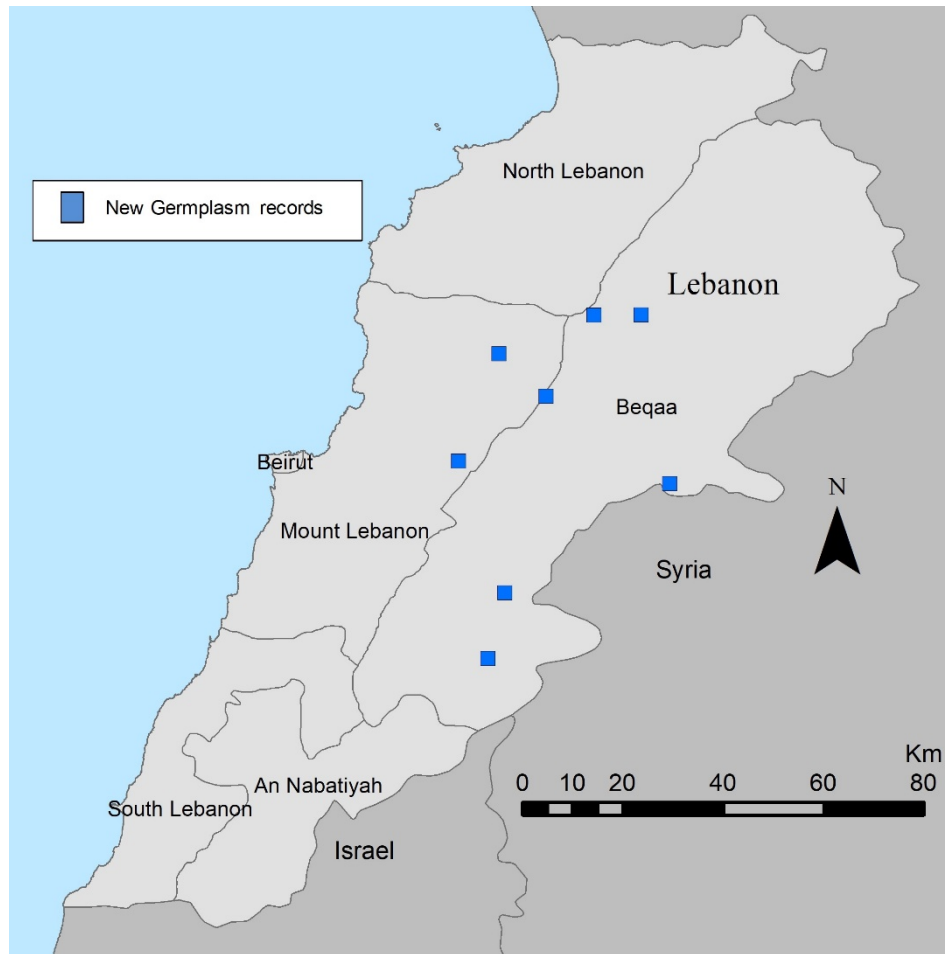
Triticum turgidum subsp. dicoccoides (Korn. ex Asch. & Graebn.) Thell.



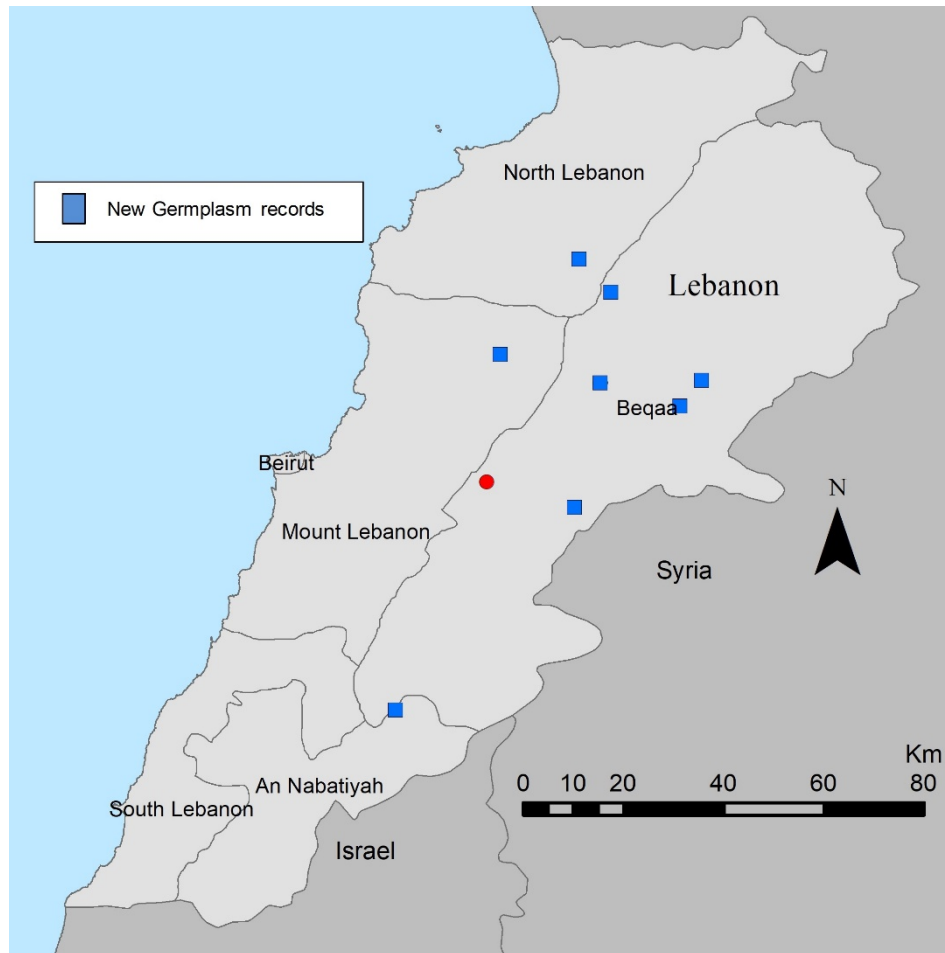
Triticum urartu Tumanian ex Gandilyan



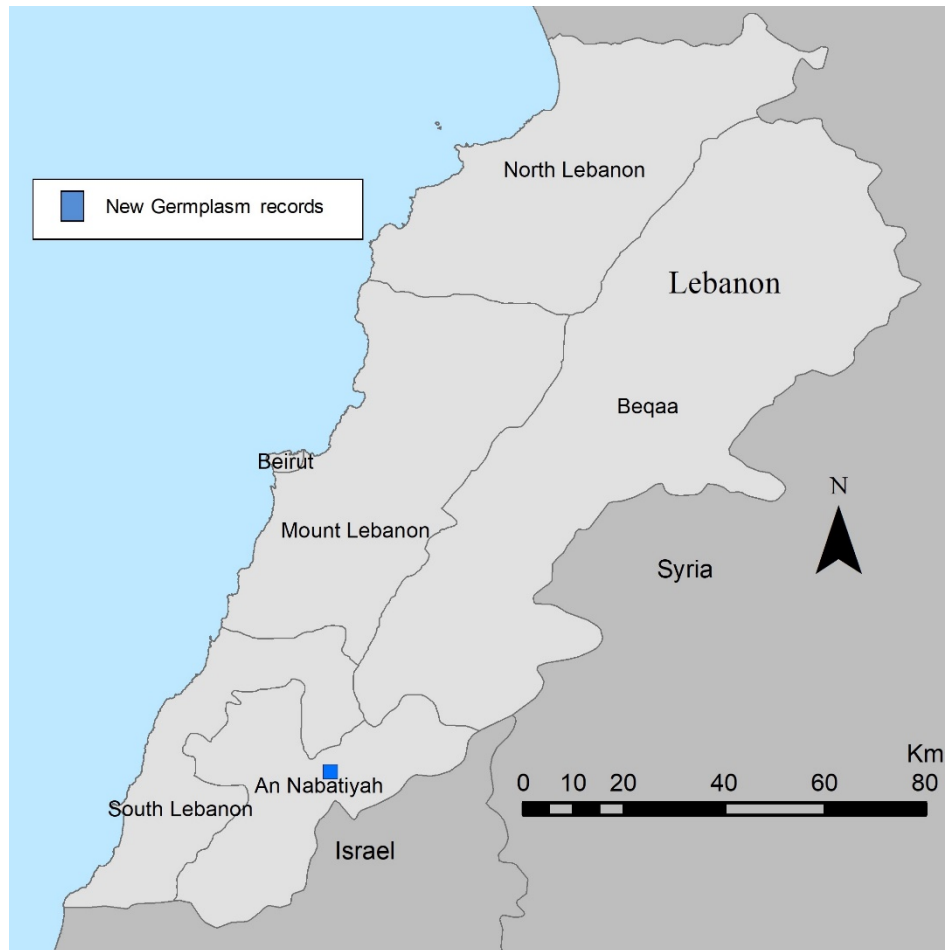
Triticum cuspidata Boiss.



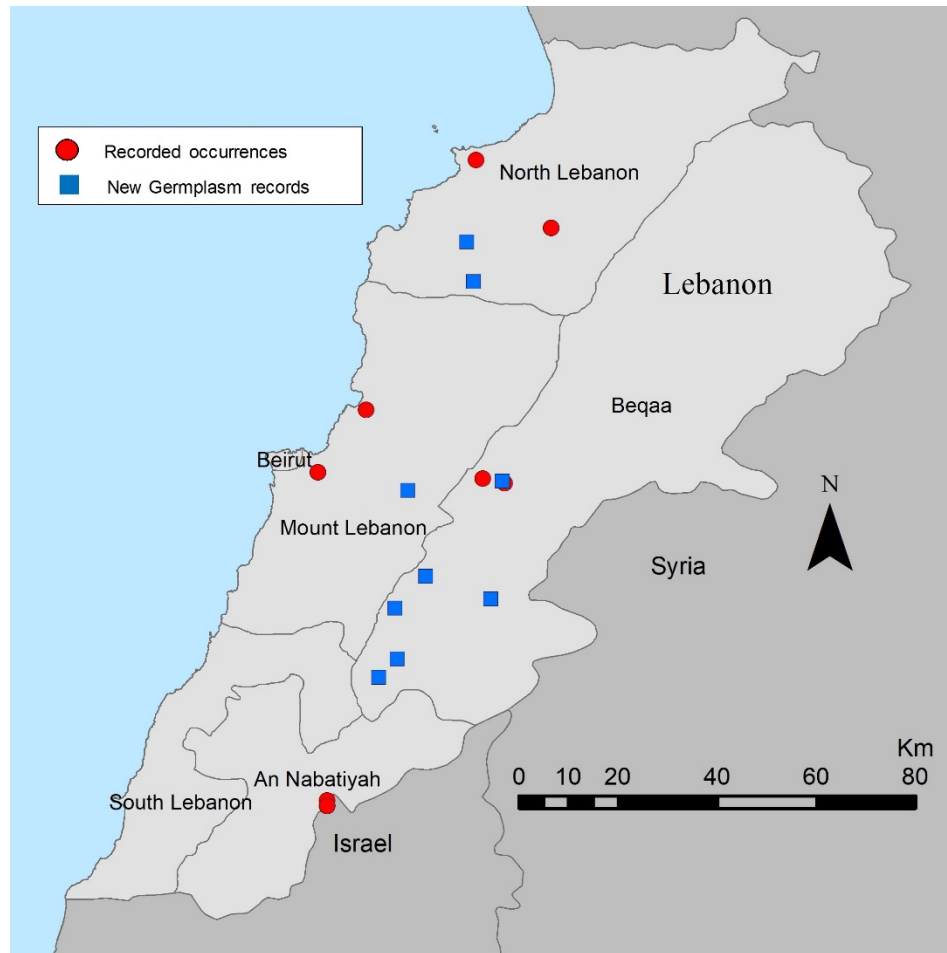
Vicia ervilia (L.) Willd.



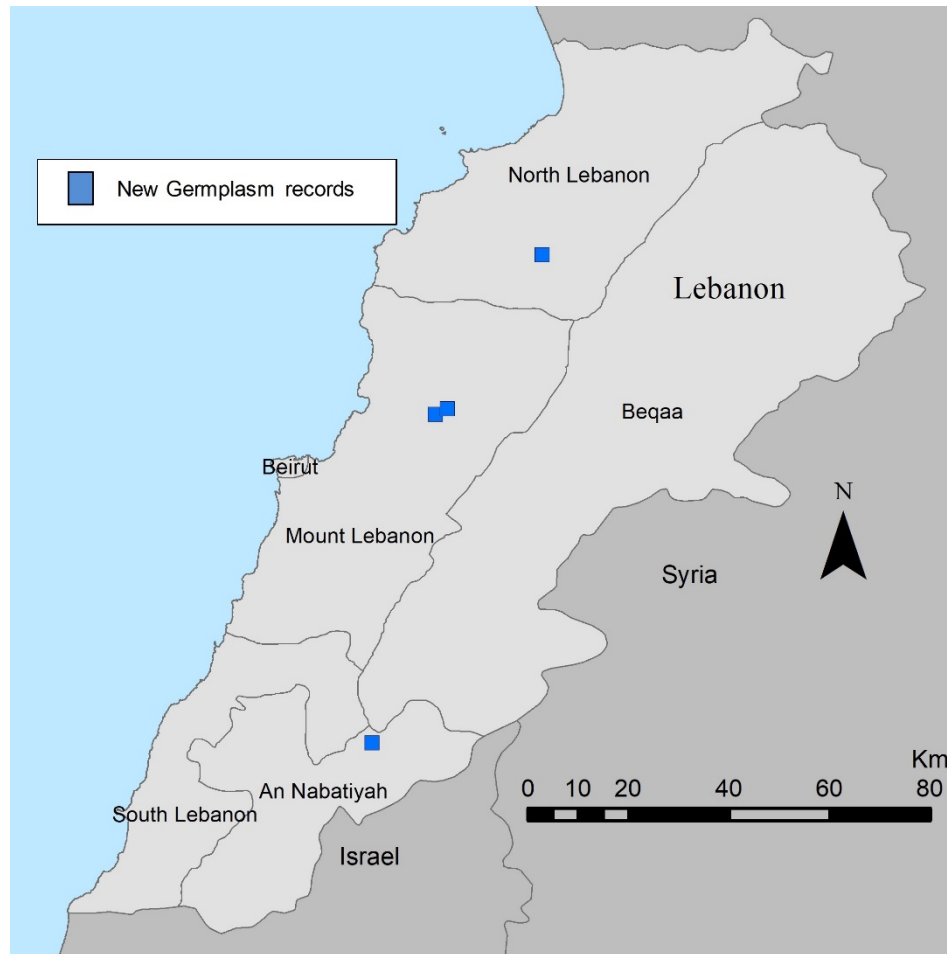
Vicia galeata Boiss.



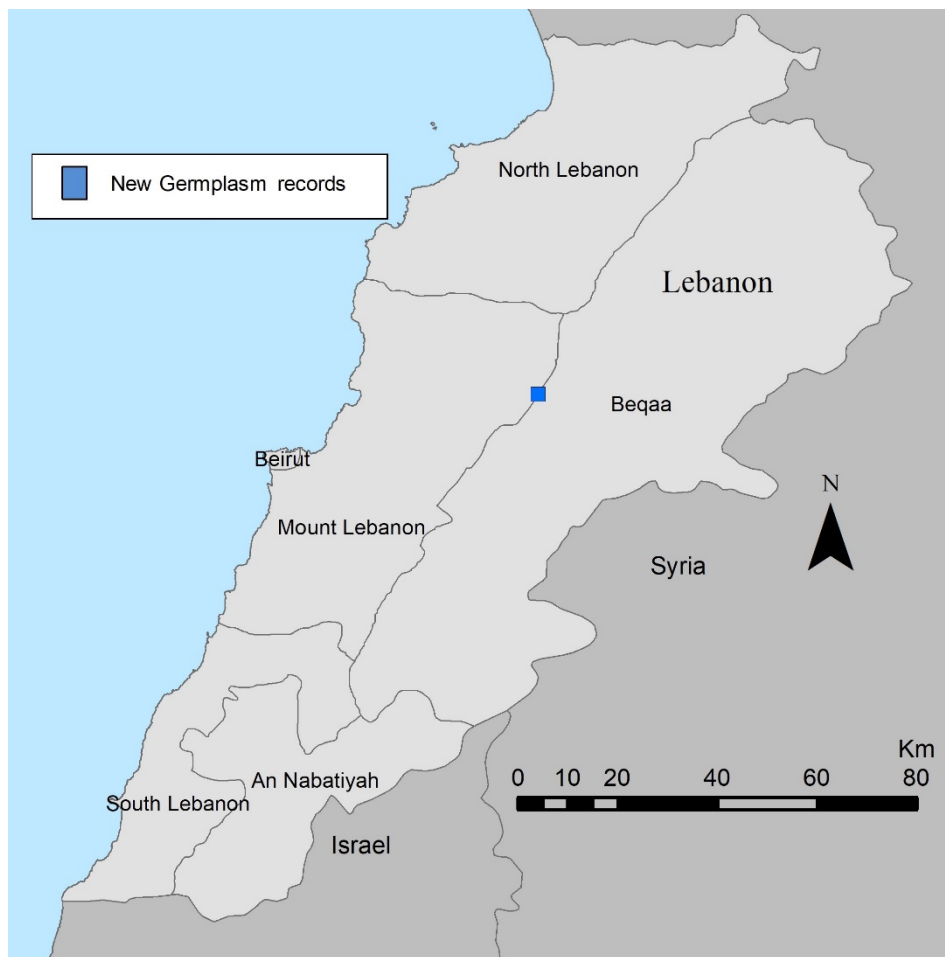
Vicia hybrida L.



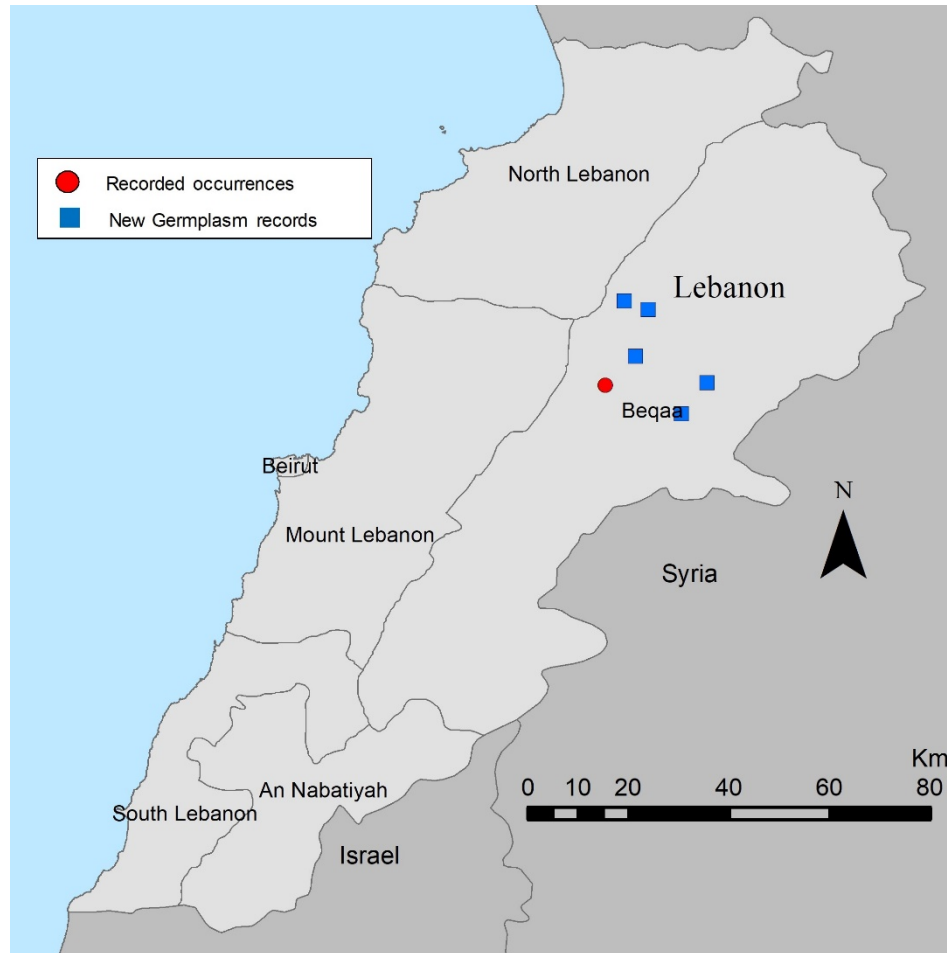
Vicia lathyroides L.



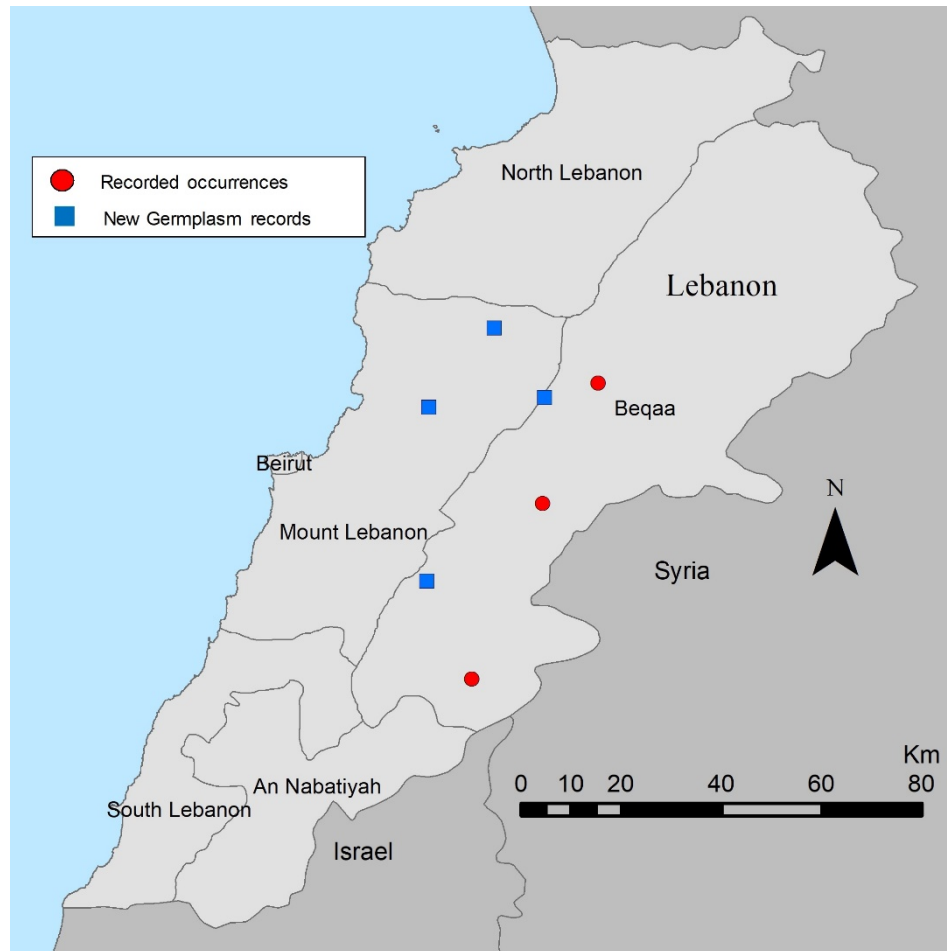
Vicia lutea L.



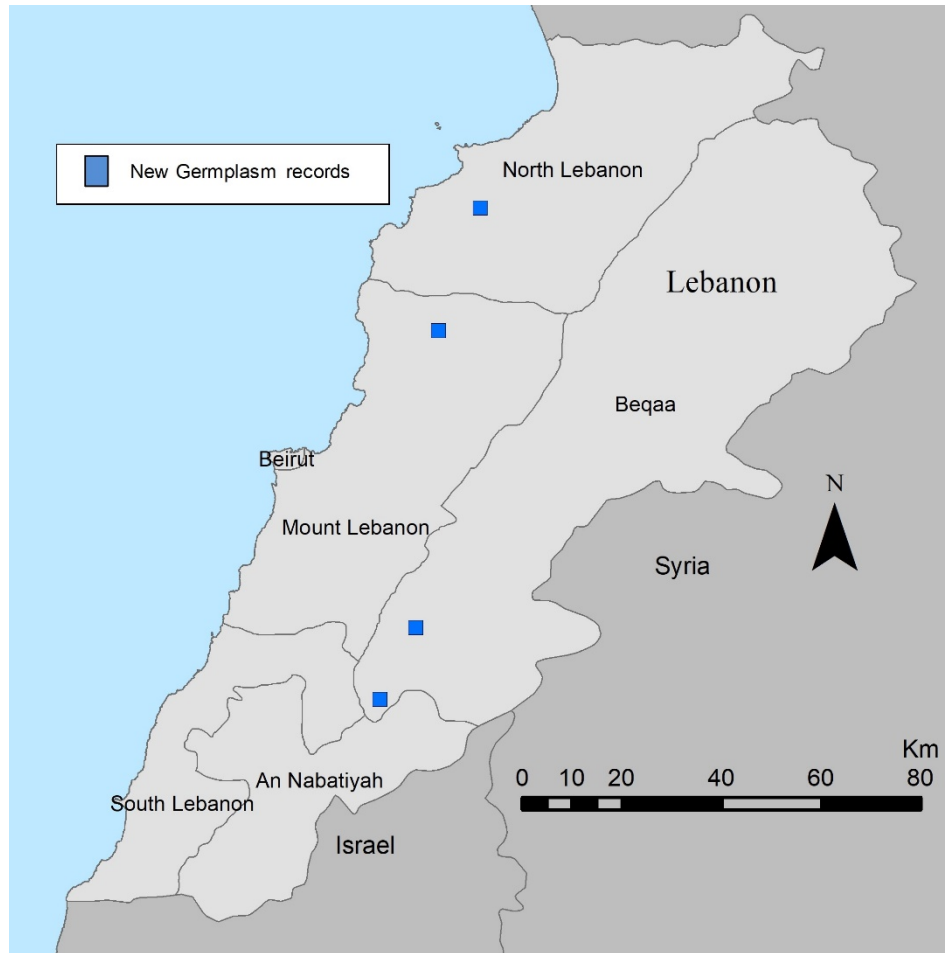
Vicia mollis Boiss.



Vicia narbonensis L.

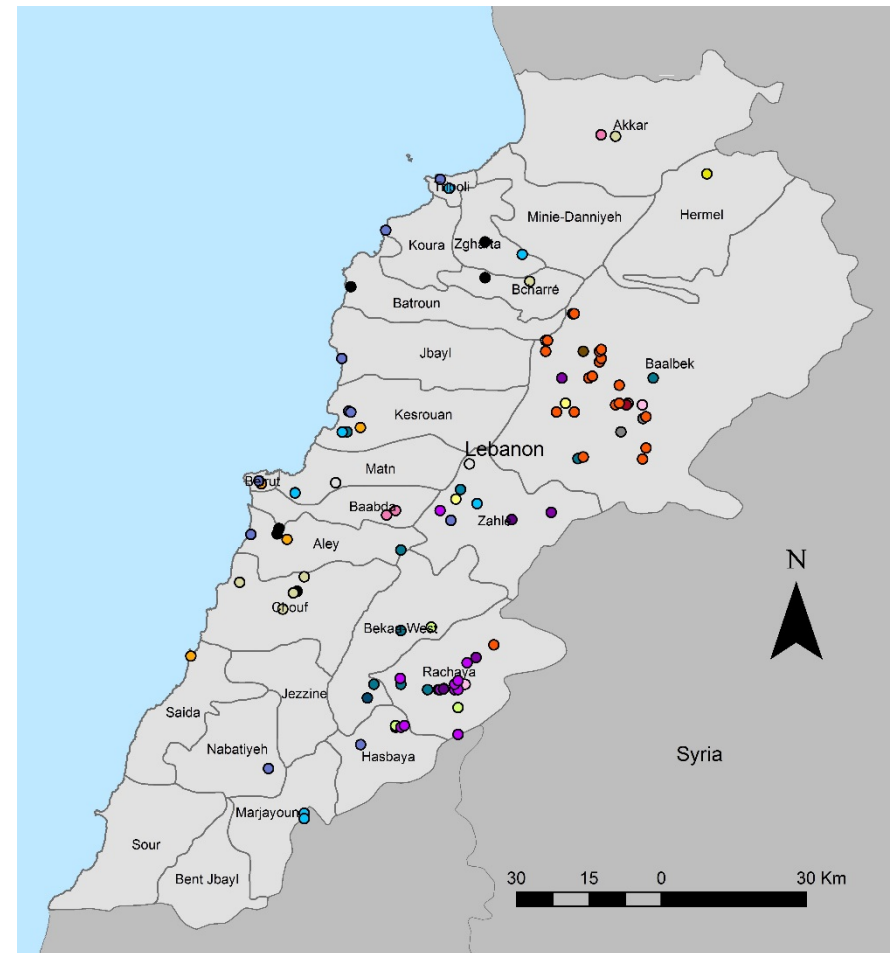


Vicia sericocarpa Fenzl



Point distribution of all available data for CWRs from Lebanon

- | | |
|---|-------------------------------------|
| ◊ <i>Vicia_ervilia</i> | ● <i>Aegilops_umbellulata</i> |
| ◊ <i>Vicia_mollis</i> | ● <i>Lathyrus_pseudocicera</i> |
| ● <i>Vicia_narbonensis</i> | ◊ <i>Lathyrus_ochrus</i> |
| ● <i>Vicia_hybrida</i> | ● <i>Lathyrus_marmoratus</i> |
| ● <i>Vicia_sericocarpa</i> | ◊ <i>Lathyrus_cassius</i> |
| ◊ <i>Vicia_cuspidata</i> | ● <i>Lathyrus_blepharicarpus</i> |
| ● <i>Triticum_urartu</i> | ◊ <i>Hordeum_vulgare_spontaneum</i> |
| ● <i>Triticum_turquidum_dicoccoides</i> | ● <i>Hordeum_murinum</i> |
| ● <i>Pisum_fulvum</i> | ● <i>Hordeum_marinum</i> |
| ● <i>Medicago_turbinata</i> | ● <i>Avena_fatua</i> |
| ● <i>Medicago_scutellata</i> | ● <i>Aegilops_vavilovii</i> |
| ◊ <i>Medicago_rugosa</i> | ◊ <i>Aegilops_serarsii</i> |
| ● <i>Medicago_murex</i> | ● <i>Aegilops_markgrafii</i> |
| ● <i>Medicago_marina</i> | ◊ <i>Aegilops_cylindrica</i> |
| ◊ <i>Medicago_littoralis</i> | ● <i>Aegilops_columnaris</i> |
| ◊ <i>Medicago_constricta</i> | ● <i>Aegilops_biuncialis</i> |
| ◊ <i>Lens_ervoides</i> | ● <i>Cicer_judaicum</i> |
| ◊ <i>Lens_culinaris_orientalis</i> | |



There are no data for the following species:

- *Aegilops crassa* Boiss.
- *Aegilops speltoides* var. *ligustica* (Savign.) Fiori
- *Avena wiestii* Steud.
- *Lathyrus basalticus* Rech.f.
- *Lathyrus chrysanthus* Boiss.
- *Secale strictum* (Presl.) Presl.
- *Vavilovia formosa* (Steven) Al.Fed.
- *Vicia assyriaca* Boiss.
- *Vicia cuspidata* Boiss.
- *Vicia galilaea* var. *faboidea* (Plitm. & Zoh. in Plitm.) H. Schafer
- *Vicia hyaeniscyamus* Mout.
- *Vicia sativa* subsp. *amphicarpa* (L.) Batt.
- *Vicia serratifolia* Jacq.