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Location: University of Fort Hare
Level of project: MSc
Working title: Assessing the invasive status of *Crataegus spp* in South Africa

Background

Crataegus spp, commonly known as hawthorns, are native to Europe, North Africa and West Asia. Hawthorn trees have many uses; ranging from their propagation as ornamental and hedge plants, use of edible fruits as food, to plant parts being utilised for medicinal purposes. *Crataegus spp* have been introduced into several countries including South Africa, although it is unclear how this occurred in the latter. Where naturalised species of this genus form dense, spiny thickets that displace and suppress other shrubs, thereby reducing native biodiversity. Hawthorns provide poor habitat for native fauna, but have been reported to provide cover for pests.

Three species of this genus recorded in the Eastern Cape and Free State provinces of South Africa; *C. monogyna*, *C. mexicana* and *C. phaenopyrum*, present potential for serious future invasions. The invasive status of these species is currently unknown, and none of them are listed in relevant South African legislation (e.g. NEMBA 2004). A thorough risk assessment of these species is therefore necessary as a primary step to inform future legislative and management efforts.

Focusing on at least three of the following *Crataegus spp* in South Africa (*C. monogyna*, *C. mexicana* and *C. phaenopyrum*), the aim of this project is thus to assess the invasive status of hawthorns in South Africa. Some of the aspects to be covered in the study include:

- The current and potential distribution of the species in SA
- The risk on biodiversity, and possible disruption of ecosystem function
- The reproductive biology of these species
- The introduction pathways of these species

This project is suitable for candidates interested in invasion biology and ecology.

Key contacts

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Further Reading

Glen, H.F. 2002. *Cultivated Plants of Southern Africa*. Jacana, Johannesburg.
Phipps, J.B., O'Kennon, R.J., Lance, R.W. (2003). *Hawthorns and medlars*. Royal Horticultural Society, Cambridge, U.K.