

Biodiversity research of the Hon Ba Nature Reserve in southern Vietnam



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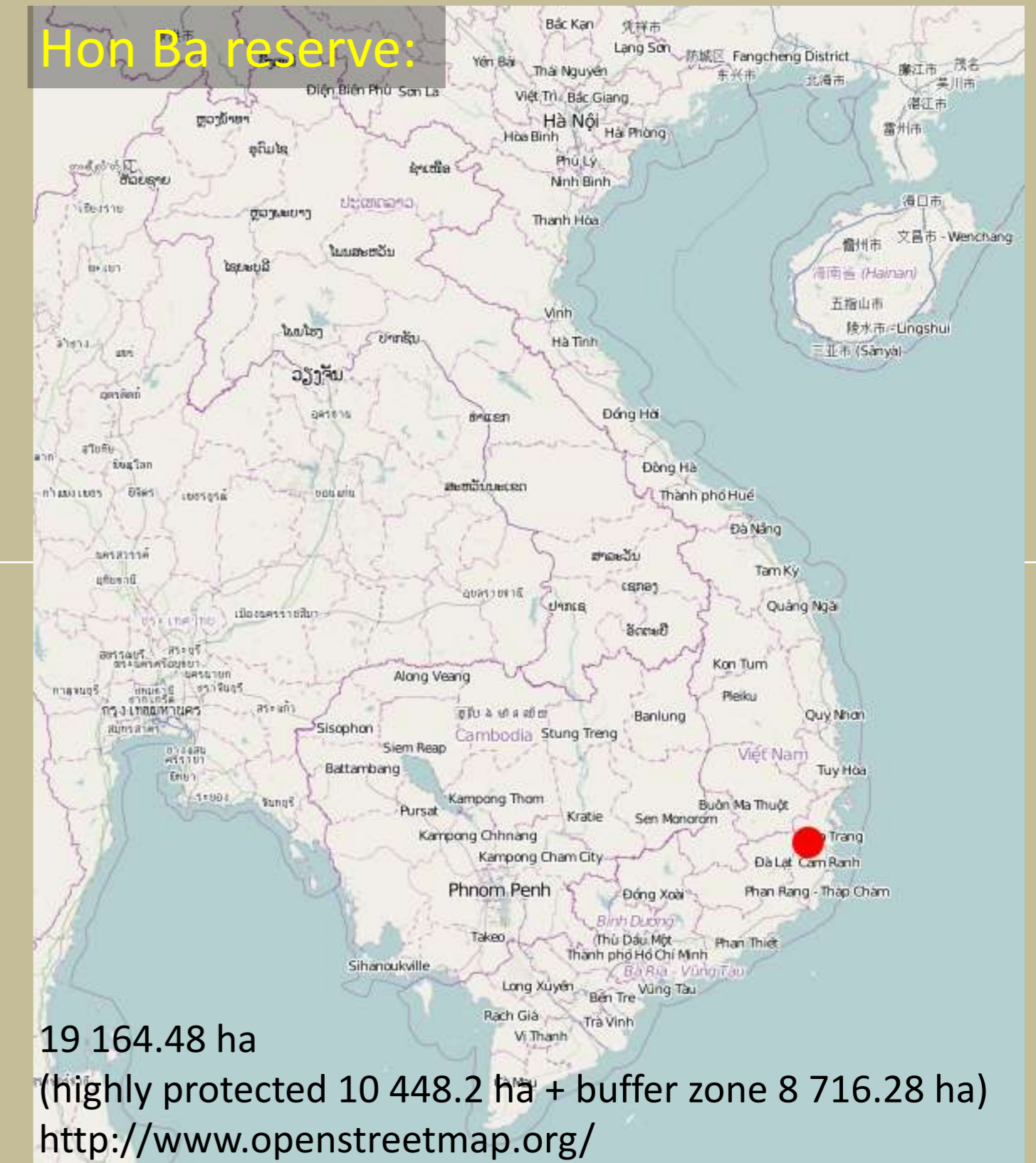
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Introduction:

Hon Ba Nature Reserve located in southern part of Vietnam, comprises of mountainous, hardly accessible terrain. Various vegetation types are represented throughout the wide elevation range of 20-1547 m asl. Except for small areas affected by human activity, most of the reserve is still covered by primary forests with majority of the reserve area not easily accessible. There were no detail studies focusing on plant biodiversity of the Reserve with about 500 plant species reported by 2010.

Our research:

Detailed studies of vegetation (2010-2013) focused on accessible areas during different seasons, and suggest that number of plant species will increase by at least two-fold. Herbarium collections, basic descriptions and photo-documentation were done in the field and certain plants were collected for subsequent cultivation under artificial conditions in Europe. Orchids are one of the key plant groups of our research.



Mountainous forest near the top of Hon Ba mountain (1500 m asl.).



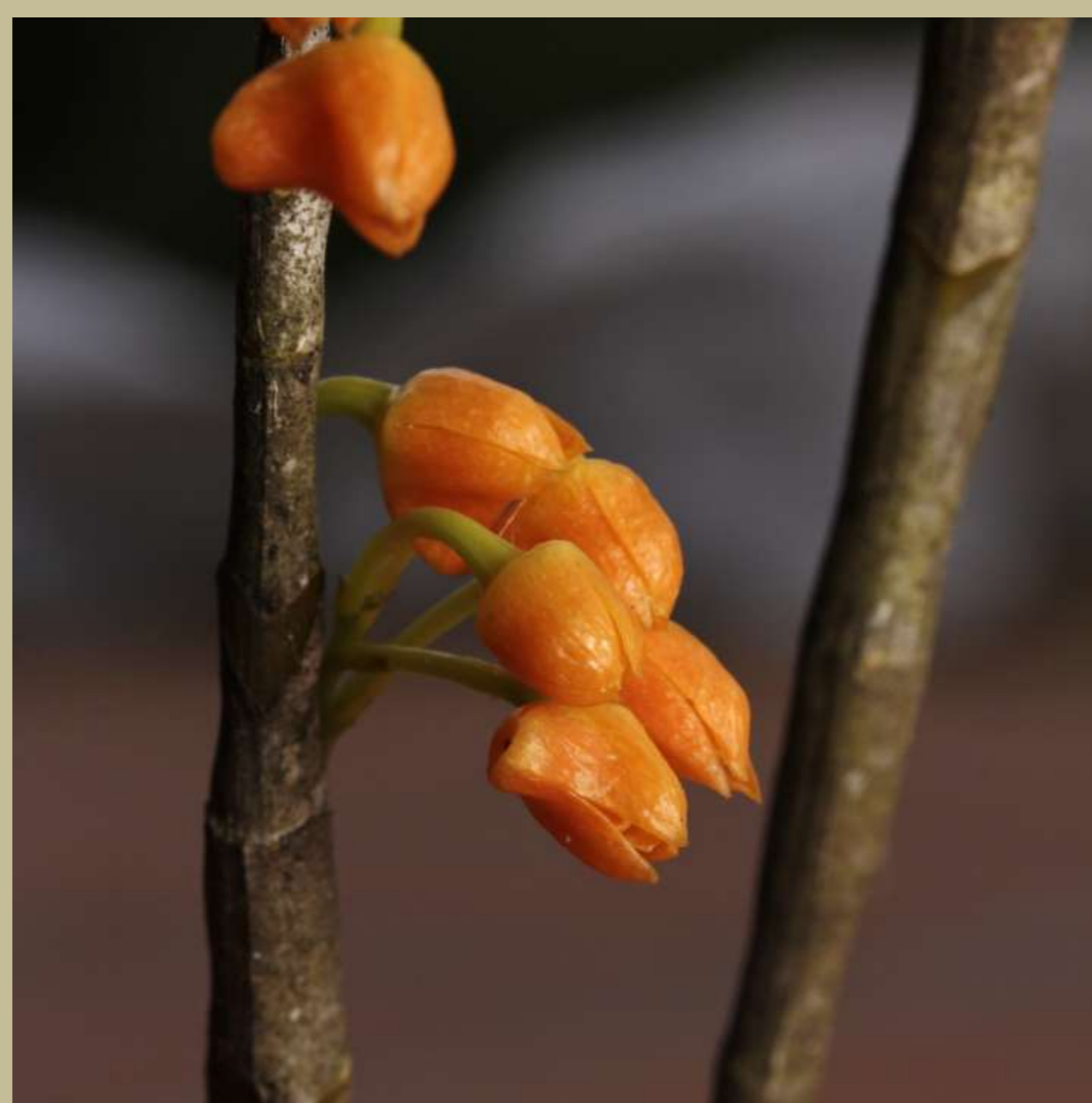
A colony of *Paphiopedilum delenatii* Guillaumin, a critically endangered species which had been considered as extinct in nature in past years.

Results:

So far we have recorded 90 orchid species, of which three are confirmed to be new to science (*Bulbophyllum* aff. *umbellatum*, *Liparis* „*honbaensis*“ sect. *Cestichis*, *Zeuxine* sect. *Psychechilos*) and four represent a new record for Vietnam (*Appendicula ovalis* (Schltr.) J.J.Sm. ex Mansf., *Cephalantheropsis halconensis* (Ames) S.S.Ying, *Hetaeria finlaysoniana* Seidenf., *Lecanorchis nigricans* Honda).



Lecanorchis nigricans Honda, fully mycoheterotrophic species previously known only from Thailand, China and Japan.



Dendrobium farinatum Schildh.&Schraut, originally described in 2004 from cultivated material in Germany which originated from unknown place in Vietnam.



Liparis sp. nov. („*honbaensis*“)

Conclusions:

Our preliminary results indicate high biodiversity value of this poorly explored reserve, which deserves the corresponding level of protection as it is rich in endemic species and undoubtedly harbours many novelties yet to be discovered.