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#### ABSTRACT

The studies on chromosome and pollen of tribe Desmodieae (Papilionoideae) in Phu Phan National Park were carried out between January 2001 and December 2001. Twenty nine species one subspecies and two varieties are enumerated. Chromosome number determinations are reported for 20 taxa. Gametic number counts are between 8 and 11. The somatic chromosome numbers are  $2n = 16$  for *Alysicarpus bupleurifolious* and *A. vaginalis*;  $2n = 22$  for *Codariocalyx motorius*, *Dendrolobium lanceolatum*, *Desmodium gangeticum*, *Des. heterocarpon*, *Des. oblongum*, *Des. renifolium*, *Des. renifolium* var. *oblatum*, *Des. velutinum*, *Des. sp. 2*, *Droogmansia godefroyana*, *Phyllodium elegans*, *Ph. kurzianum*, *Ph. longipes*, *Ph. pulchellum*, *Tadehagi triquetrum*, *Uria cordifolia*, *U. crinita* and *U. lagopodioides*. Counts for 8 taxa are recorded for the first time. Pollen grains of 17 and 32 taxa were examined by scanning electron microscopy and light microscopy. All grains are monads, isopolar, radial symmetry and tricolporate or tricolpate. The pollen grain sizes are 18-39  $\mu\text{m}$ . Eight different exine sculpturing patterns were observed: granulate, perforate, psilate, finely reticulate, finely reticulate OL, psilate, reticulate and rugulate.