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#### Relations among the Environment of Home Habitat, Taxonomic Groups, and Seed Production of *Amphicarpaea edgeworthii* Benth.

Teruo ARASE and Naoto INOUE

1) Fac. of Agr. Kyoto Univ.

2) Shinshu Univ.

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#### Abstract:

To elucidate the relationship between the seed production of yabumame (*amphicarpaea edgeworthii* Benth.) and the micro-environment of its habitat, vegetation and external leaf morphology (leaf color, leaf area, density of pubescence, and pulvinus color) were investigated for indicating indirectly the latter. In addition, the association between taxonomic groups and seed production was reviewed since leaf morphologies were criteria for the taxonomy of varieties in *A.edgeworthii*. A stand of each strain's home habitat was surveyed by ordination concept based upon the biological spectrum. Degree of succession (DS) was calculated from the spectrum of Raunkiaer's dormancy form. Most of the stands were kept at rather intensely disturbed states so that the DS was between 5 and 10. The percentage of rosette species was calculated in each stand from the spectrum of growth form. Among the stands, 0.15 to 0.30 of the percentage was outstanding. This percentage had a significant negative correlation with 1, 000-seed weight. The leaf morphologies were vaguely associated with vegetation and seed production. It was confirmed that distributions of strains of thinly pubescent, blackish-purple pulvinused leaves with grayish-green backs were geographically localized. Since this pattern was similar to what had been reported for *A.edgeworthii* var. *trisperma*, it appeared that the leaf traits were the criteria by which the varieties were judged. As we failed to correlate those leaf traits with seed production, it is not considered to be possible to use the differences in geocarpic seed production as their traits of the 2 varieties.

#### Keywords:

*Amphicarpaea edgeworthii* Benth., Habitat, Leaf morphology, Rosette, Seed production, Succession, Vegetation

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