

# Spider Community in Agricultural landscape

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This study was conducted to investigate the soil dwelling spider community by using pitfall traps in agricultural landscape. The surveyed area was consisted of paddy fields, uplands, stream sides and adjacent hillocks in Balan area, Kyunggi-do, and represented agricultural region (Gichun-ri), industrial region (Deokwoo-ri) and settlement region (Haechang-ri). Samplings were carried out 23 times in total from November 2000 to December 2001.

In the agricultural region in Gichun-ri, 80 genera 106 species belonging to 26 families, in the industrial region in Deokwoo-ri, 69 genera 89 species belonging to 23 families and in the settlement region in Haechang-ri, 79 genera 101 species 25 families were identified.

Dominant families in the surveyed area were Theridiidae, Linyphiidae, and Lycosidae. Dominant species were *Stemmopes nipponicus*, *Anahita fauna*, *Orthobula crucifera* in Gichun-ri, *Stemmopes nipponicus*, *Gnathonarium dentatum*, *Pardosa laura* in Deokwoo-ri and *Bathypantes gracilis*, *Ummeliata insecticeps*, *Pardosa laura* in Haechang-ri.

Similarity indices among the 3 surveyed regions were 0.68-0.76 in range. However those indices among 4 sites of each surveyed region were 0.24-0.67 in range. The similarity index for paddy field and upland in Gichun-ri was the highest, and the lowest was from hillcock and stream side in Haechang-ri. When the indices were calculated by comparing all the pair of 12 sites, the range of indices were 0.24-0.69. The similarity index for hillcock of Deokwoo-ri and Haechang-ri was the highest, and the lowest was from hillcock and stream side in Haechang-ri.

Population dynamics of spider community of 4 surveyed sites showed irregular pattern. The pattern of dynamics was similar in paddy fields, upland and hillcocks of 3 regions except in stream side.