## D-58 Vegetative types of Lunugamwehera National Park

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Lunugamwehera National Park (6°21' and 6 31' N and 81 03' and 81 16' E) was established (1995) in order to protect the catchment area of newly built Lunugamwehera reservoir. Aim of the present paper was to study present status of the ecology. Its objectives were to study the physical ecological features of plant communities of the park.

Different vegetation types of Lunugamwehera were identified after studying the aerial photos of the area and field verifications. The actual areas were estimated by measuring the respective areas in the vegetation maps using an electronic planimeter. All the important places were visited and ecological data were collected. Further, 10 x 10 m plots were marked (in forests) and 50 cm x 50 cm quadrats (in grasslands) and collected ecological data. Within the plots number of individuals and height of each tree species above 30 cm GBH, number of individuals of under growth species, % ground cover by ground vegetation were recorded. A total of 50 plots and 50 quadrats were studied altogether. Following habitats were recognized (estimated percentages in parentheses): scrub/grassland mixtures (40%), the reservoir (17%), scrubs (15%), grasslands (12%), grasslands under forest plantations (6%), dry zone forest (9%), and rocky areas (1%). In some areas the mosaic of scrubs and grasslands were similar in appearance and species composition to Pelessa/grasslands of Yala. Commonly found tree/shrub species in the scrub forests were *Securinega leucopyrus* (25%), *Drypetes sepiaria* (20%), *Strychnos potatorum* (20%), *Cordia domestica* (12%) and *Cordia* sp. (10%). Grasslands were composed mainly of *Chloris montana, Eragrostis* sp., and *Cynodon* sp. Their respective mean dry matter yields as g/plot were 165, 82 and 63. In former agricultural/or forest plantation areas, the grasslands were almost pure stands of *Panicum maximum* and the scrub patches represented seral stages. The main canopy of the medium density (approximately 65% crown closure) dry zone forest patches were dominated by *Drypetes sepiaria* (individuals 362/ha and 50 cm GBH). Its other common species were *Manilkara hexandra* (individuals 120/ha and 105 cm GBH). *Schleichera oleosa* (individuals 65/ha and 150 cm GBH), *Lanea coromandelica* (individuals 75/ha abd 105 cm GBH), *Diospyros ovalifolia* (individuals 50/ha and 58 cm GBH), *Walsura piscisda* (individuals 80/ha and 45 cm GBH) and Maila (individuals 40/ha and 35 cm GBH).