

1200 and 1800 m alt. The natural vegetation of the lower parts of the Crocker Range is hill dipterocarp forest, and that of the upper zones is rich in oaks, chestnuts and conifers. The highest ridges bear thick mossy forests (WWF Malaysia (ed.), 1998). Mahua Waterfall area is located near downtown of Tambunan, Sabah, and in the northern part of the national park. Collections were made between 1000 and 1100 m alt. along the main trail. The area is probably in a transitional zone between hill-type tropical rain forest and lower montane oak forest (see Kobayashi & Hotta, 1978), and the forest floor along the trail is covered with abundant herbs.

Sepilok Forest (= Kabili-Sepilok Forest Reserve) The Kabili-Sepilok Forest Reserve is located 24 km by road from downtown of Sandakan, Sabah, and occupies an area of 43 km². The reserve is covered almost entirely by lowland forests predominated by the family Dipterocarpaceae (WWF Malaysia (ed.), 1998). Collections were made in the reserve and an artificial vegetation around the Rainforest Interpretation Centre.

Deramakot Forest Reserve This forest reserve is located about 50 km south of downtown of Telupid, and extends over an area of 551 km² between 117°20'E and 117°42'E, and 5°19'N and 5°20'N. The forests of Deramakot occupy parts of a basin between 20 and 100 m alt., formed by five rivers which all drain into the Kinabatangan River which marks the reserve southern border. The reserve consists of mixed dipterocarp lowland forest of the *Parashorea tomentella* / *Eusideroxylon zwageri* type which covers much of the Sandakan area, but due to the past management from 1956 the forest structure became extremely heterogeneous with a wide range of structural features, from open gaps to dense stands (Carsten Brühl, 2000, pers. com.). Collections were made by Carsten Brühl in DFR (secondary forest, one of the 134 compartments within the Deramakot forest reserve) in 1998 and 1999.

Danum Valley Field Centre area Danum Valley Conservation area is situated in eastern Sabah at the upper reaches of the Segama River, approximately 70 km from the coast, and comprises 438 km² of tropical lowland evergreen dipterocarp forest. Annual rainfall and mean annual temperature at Danum Valley Field Centre (4°58'N 117°48'E) are 2822 mm and 26.7°C, respectively (Chung & Maryati Mohamed, 1993). Collections were made along the trail system around the Headquarters (ca. 200 m alt.).

Gunong Rara This area (4°58'N 117°08'E, ca. 250 m alt.) is located in central Sabah. Logging was performed in recent years, and my collection was made in the front line of the logging in early December, 1996 and late February, 1997.

Tawau Hills Park This park which covers an area of nearly 280 km² is located in southeastern Sabah, about 20 km north of downtown of Tawau. The terrain is quite rugged and hilly, with altitudes ranging from 30 to 1310 m. The vegetation is of a lowland rainforest dominated by dipterocarp species (Siraj Omar & Jamili Nais, 1995). Sixty percents of the area are covered with primary rainforest and the remaining 40 % are secondary (logged-over) dipterocarp forest (Malim *et al.*, 1995). Collections were made in a lowland forest (including forest edges and watersides) and open land very close to the park headquarters.

Belalong Forest Section This area lies within the Batu Apoi Forest Reserve, Temburong, Brunei Darussalam, and extends over approximately 50 km², from the river junction of Sungai Belalong and Sg. Temburong in the north to the summit of Bukit Belalong (913 m) in the south (Earl of Cranbrook & Edwards, 1994). Collection was made mainly along the Ashton trail from Kuala Belalong Field