GENERAL INFORMATION

author(s)	Versteirt V, Desender K, Geudens G, Grootaert P
year	2000
English title	Identification and bio-indication of forest-dwelling arthropods. 3. Ecological characterization of forest stands based on the present Coleoptera. 4. Explorative research on the potential value of forest reserves for the conservation of wood-dwelling arthropods.
original title	Determinatie en bioindicatie van bosgebonden ongewervelden. 3. Ecologische standplaatskarakterisatie van bossen aan de hand van keverfauna (Coleoptera). 4. Verkennend onderzoek naar de potentiële waarde van integrale bosreservaten voor het behoud van xylobionte arthropoden.
reference	Rapport ENT.2000.03 & ENT.2000.04, KBIN, Brussels
pages	193
type	report (r)
ecosystem service	supporting – biodiversity
keywords	dead wood
taxa	*Coleoptera, Empididae*
project	B&G/29/98: Identification of forest invertebrates and variables indicating their occurrence
supervisor	
institution	Royal Belgian Institute of Natural Sciences
location	pdf
data	p 138–139 (annex 3) Flora&Fauna.xls

MATERIALS & METHODS

study area	5n (scientific zone)
time period	March 1997 – May 1998 (soil fauna), April 1999 – March 2000 (dead wood)
goal	Investigate the species richness and distribution of soil fauna, a group of organisms that has largely been ignored so far, in forests in Flanders.
set-up	56 plots of the soil fauna project in forests in Flanders - 56 plots with pitfall traps: buried glass pots (h = 10 cm, internal ø = 9.5 cm) with 3–4 % formaldehyde (+ detergent, + salt in winter) - 49 plots with colour traps (white/yellow): plastic pots at the soil surface (h = 9 cm, ø = 9.5 cm) with 3–4 % formaldehyde (+ detergent, + salt in winter) - 3 traps of each type per plot, distance between the traps ca. 4 m 4 plots of the wood-dwelling soil fauna project in forest reserves - 1 standing dead beech - 3 pitfall traps, 3 white/yellow traps, 1 window trap, 1 tempt trap, 1 eklektor trap
data collection	soil fauna project - two-weekly sampling (March – November 1997), three-weekly (November 1997 – February 1998), two-weekly (March–April 1998) - kept in 70 % alcohol wood-dwelling soil fauna project - 2-weekly sampling (3/4-weekly during winter)
remarks	plot description data (soil, litter, vegetation) are presented in DeBakker_etal_2000 only the spring-summer data have been studied

RESULTS

Description of the biology and ecology of the studied species groups. The identified families are given in the table on p 37: 11 147 adults of 227 species were identified. The largest number of individuals was trapped with the pitfall traps. Overall, more individuals were trapped in the white colour traps than in the yellow colour traps. However, some species were trapped more in the yellow traps.

traps	no individuals	no species	no families
pitfall	7145	220	34
colour	4002	32	4

The ash plot in Gontrode is one of the 10 plots with the highest species diversity. The lowest number of species typical to forests were found in the forest of Gontrode.

The occurrence of beetles is correlated with soil texture, forest age, and tree species. Next to this, beetles are also correlated with soil moisture, altitude, and forest area. The young pine stands of the Campine region are a distinct group.