Ground-dwelling invertebrates from Bream Head Scenic Reserve

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Ground-dwelling invertebrates were assessed at the Bream Head Scenic Reserve near Whangarei, Tai Tokerau, to examine habitat differences and to monitor the progress of the restoration programme there. Pitfall trapping was conducted at three sites within the reserve encompassing three habitat types: kanuka-dominant regenerating scrub, regenerating forest with some kanuka and canopy trees, and mature coastal broadleaf forest. Taxa were identified to species or genus, or to a recognizable taxonomic unit. The highest numbers of individuals (5676 individuals) and identifiable invertebrate taxa (145 taxa) were recorded at the mature forest site. The lowest number of taxa was recorded at the regenerating forest site (114 taxa), while the lowest number of individuals was recorded from the regenerating scrub site (1056 individuals). Examination of key indicator groups or species may be useful in evaluating habitat differences and the success of the restoration programme. With the exception of the Hemiptera, the “abundances” of every major taxon were highest in mature forest. Much of the increase in mature forest was due to disproportionate contributions from a small number of taxa, mainly within the Collembola, Amphipoda, Isopoda and Acari. The ground beetles (Carabidae), Diptera (Howickia sp), Hemiptera, Amphipoda, Isopoda, Acari and Aranaea appear to be emerging as potentially useful indicator taxa. Twice yearly pitfall trapping will continue and will likely further elucidate many of the interactions between species, habitat-type, and ecological restoration.