

Oral presentation

Bracken (*Pteridium esculentum*) as a food source for pre-contact Maori in New Zealand

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Introduction. The pre-historic environment provided an abundant supply of protein from fish, shellfish and game for New Zealand Maori. Maori were skilled agriculturists and produced good crops of kumara (sweet potato). However, seasonal carbohydrate shortages particularly during the summer season before kumara crops were harvested lead to the gathering and processing of bracken fern rhizomes as a carbohydrate food source. Bracken is now known to contain the toxic carcinogen, ptaquiloside.

Objectives. To investigate yield for effort, seasonal variation in carbohydrate yields of bracken rhizomes to determine any seasonal variation in toxicity levels and to ascertain the effects of processing rhizomes.

Methods. A one square meter patch of bracken rhizome was gathered each month over a period of 12 months, the total weight of rhizomes gathered each month was recorded, a proportion of the rhizomes was processed by roasting and physically separating the bark fibre and farina (carbohydrate component). Samples from each stage of the gathering and processing were cryo-frozen for proximate and toxicity analysis.

Results. At this stage, data is presented on monthly yields, carbohydrate proportion, person hours effort required to gather and process. Toxicity analyses are currently underway and results will come later.

Conclusion. Ethnographic evidence shows consumption of bracken rhizome was an important component of the Maori diet in pre-European times. This research shows sustainable amounts of carbohydrate were obtainable by harvesting and processing bracken rhizomes. The extent to which toxic elements in the rhizomes were eliminated or reduced by roasting or harvesting in particular seasons is yet to be determined

Keywords: Bracken fern rhizomes, carbohydrate source

Selected References

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