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A NOTE ON THE DIET OF THE TASMANIAN ABORIGINES

Scott Cane, Jim Stockton and Amanda Vallance

The Tasmanian Aboriginal diet was drawn from marine and non-marine environments, in which food resources varied according to habitat. Alpine and rain forest environments provided a limited supply of plant food, whereas the wet and dry sclerophyll forests provided an abundant supply of plant and animal foods. The coastal zones, despite a deceptively barren appearance, supplied a consistently rich plant and marsupial food resource that was supplemented by large shellfish grounds and a seasonal abundance of birds and certain mammals.

There were many kinds of plants eaten by the Tasmanian Aborigines. However, many of these were either seasonal, as in the case of plant seeds and fruits, restricted in their location, as for example in specialised alpine communities, or sparsely represented as in the case of the orchid family. Ethnographic records suggest that these kinds of plants were a secondary food resource. On the other hand there are many environments which support an abundantly diverse range of plant foods. There are species, as in the case of the man fern *Dicksonia antarctica*, which although localised are presented in large numbers, and there are plant species such as the bracken fern *Pteridium esculentum* which are consistently well represented throughout the island. In such cases the botanical significance of the species and their regular occurrence within our ethnographic records suggests these kinds of plants were a primary food resource for the Tasmanian Aborigines. A list of the vegetable foods eaten by the Tasmanian Aborigines is tabled below.

List 1: List of foods thought to comprise the Tasmanian Aboriginal diet

<table>
<thead>
<tr>
<th>Primary food resource</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Pteridium esculentum</em> (Bracken fern)</td>
<td>Hiatt, Mollison, Jones</td>
</tr>
<tr>
<td><em>Xanthorrhoea australis</em> (Grasstree)</td>
<td>Hiatt, Mollison, Jones</td>
</tr>
<tr>
<td><em>Dicksonia antarctica</em> (Manfern)</td>
<td>Hiatt, Mollison, Jones</td>
</tr>
<tr>
<td><em>Cyathea australis</em> (Rough tree fern)</td>
<td>Hiatt</td>
</tr>
<tr>
<td><em>Carpobrotus rossii</em> (Pigface)</td>
<td>Hiatt, Mollison, Jones</td>
</tr>
<tr>
<td><em>Triglochin procera</em> (Arrow grass)</td>
<td>Jones</td>
</tr>
<tr>
<td><em>Gastrodia semenoides</em> (Native potato orchid)</td>
<td>Hiatt, Jones</td>
</tr>
<tr>
<td><em>Orchidacea</em> family in general</td>
<td>Hiatt, Mollison, Jones</td>
</tr>
<tr>
<td><em>Myliota australis</em> (Blackman's bread)</td>
<td>Hiatt, Mollison</td>
</tr>
<tr>
<td><em>Fucus palmatus</em> (Seawrack)</td>
<td>Jones</td>
</tr>
<tr>
<td><em>Durvillaea potatorum</em></td>
<td>Hiatt, Mollison</td>
</tr>
</tbody>
</table>
Secondary food resources

(a) Fruits

*Billardiera longiflora* (Climbing blue berry)
*Rubus parvifolius* (Native raspberry)
*Coprosma hirtella* (Coffee berry)
*Coprosma quadriifida* (Native currant)
*Astrolochiun humifusum* (Native cranberry)
*Sambucus gaudichaudiana* (Native elder)
*Gaultheria hispida* (Snow berry)
*Cyathodes juniperina*
*Solanum latiniatum* (Kangaroo apple)
*Persoonia juniperina* (Prickly geebung)
*Leucoptagon spp.*
*Leptomeria drupacea*
*Carpobrotus rossii* (Pigface fruit)
*Genarhenea nitida* (Native plum)
*Rhagodia baccata* (Coastal saltbush)
*Acacia sophorae* (Wattle)
*Acacia striata* (Wattle)
*Acacia bolrycephala* (Wattle)
*Acacia melanoxyron* (Wattle)
*Casuarina spp.* (Shea-oak)

(b) Gums

*Eucalyptus viminalis* (Manna gum)
*Eucalyptus gunnii* (Cider gum)
*Acacia melanoxylon* (Blackwood)

(c) Roots

*Daucus glochidiatus*
*Geranium solanderi* (Native geranium)

(d) Leaves

*Drimys lanceolata* (Mountain pepper)
*Ozalis corniculata* (Wood or clover sorrel)
*Atriplex billardieri* (Salt bush)
*Tetragonia implicifolia* (New Zealand spinach)
*Sorhbus ragalocarpus*
*Cardamine heterophylla* (Cress)
*Cardamine intermedia*
*Calandrinia calystrata*
*Lomandra longifolia* (Mat rush)
*Rhagodia baccata* (Coastal saltbush)

(e) Flowers

*Calytrix tetragona*
*Bankseaea marginata* (Honeysuckle)
*Casuarina spp.*
*Asterotrichion discol* (Currajong)

References

Jones
Jones
Jones
Mollison, Curtis
Jones
Jones
Jones
Jones
Jones
Hiatt, Mollison, Jones
Mollison
Jones
Jones
Hiatt, Jones
Robinson
Jones
Jones
Jones
Jones
Jones
Vallance
Mollison
Curtis
In the past some prehistorians believed the Tasmanian Aborigines suffered from a carbohydrate imbalance (Noetling 1910). To test this, portions of commonly available plants were sent to the Tasmanian Government Analysis Department for carbohydrate analysis. Although the full results of this analysis are shown in Table 1 we are primarily interested in the carbohydrate content of each species. The energy value of these species is documented in calorific terms and that one calorie is the amount of energy required to heat one cubic centimetre of water. There are 1000 of these calories in a kilocalorie.

The results given in Table 1 may be compared with those for five staple vegetable foods available to western man. These are shown in Table 2. We find that the Tasmanian grass tree (41.3%) holds less carbohydrate than bread (49.9%) whereas the bracken fern contains more (22.7%) carbohydrate than potatoes (19.1%). Likewise the Tasmanian man fern (12.3%), coastal salt bush (10.3%) and pig face (4.6%) contain a higher percentage of carbohydrate than carrots (8.6%), pumpkin (7.1%) and spinach (3.7%). For the total carbohydrate contribution of these western foods we find that for the five species - or 500 grams tested, there is a total of 88.4 grams of carbohydrate whereas for the same gross gram weight in the native foods tested there were 91.2 grams of carbohydrate.

From these results it seems that individual plant species available to the Aborigines were as well stocked with carbohydrate as the vegetable foods available in the western diet. This fact, coupled with the extensive distribution of each species tested would support a conclusion that the floral component of the Tasmanian environment was not deficient in carbohydrate and hence the diet of the Tasmanian Aborigines did not suffer from a carbohydrate imbalance.

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Table 1: Composition of foods per 100 grams edible portion

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Common name</th>
<th>Part eaten</th>
<th>Protein g</th>
<th>Fat g</th>
<th>Carbohydrate g</th>
<th>Calories Kcal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dicksonia antarctica</td>
<td>Man fern</td>
<td>Core</td>
<td>1.6</td>
<td>0.6</td>
<td>12.3</td>
<td>61</td>
</tr>
<tr>
<td>Pteridium esculentum</td>
<td>Bracken fern</td>
<td>Root</td>
<td>1.3</td>
<td>0.4</td>
<td>22.7</td>
<td>99.6</td>
</tr>
<tr>
<td>Xanthorrhoea australis</td>
<td>Grass tree</td>
<td>Core</td>
<td>3.5</td>
<td>0.3</td>
<td>41.3</td>
<td>181.5</td>
</tr>
<tr>
<td>Carpobrotus rossii</td>
<td>Pigface</td>
<td>Leaves</td>
<td>0.8</td>
<td>0.3</td>
<td>4.6</td>
<td>24.5</td>
</tr>
<tr>
<td>Rhagodia baccata</td>
<td>Coastal saltbush</td>
<td>Leaves</td>
<td>3.2</td>
<td>0.4</td>
<td>10.3</td>
<td>57.4</td>
</tr>
</tbody>
</table>

Table 2: Composition of foods per 100 grams edible portion

<table>
<thead>
<tr>
<th>Foods</th>
<th>Part eaten</th>
<th>Protein g</th>
<th>Fat g</th>
<th>Carbohydrate g</th>
<th>Calories Kcal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potato</td>
<td>Root</td>
<td>2.0</td>
<td>0.1</td>
<td>19.1</td>
<td>80</td>
</tr>
<tr>
<td>Bread (white)</td>
<td>-</td>
<td>7.8</td>
<td>1.5</td>
<td>49.9</td>
<td>243</td>
</tr>
<tr>
<td>Pumpkin</td>
<td>Fruit</td>
<td>1.0</td>
<td>0.2</td>
<td>7.1</td>
<td>31</td>
</tr>
<tr>
<td>Spinach</td>
<td>Leaves</td>
<td>2.5</td>
<td>0.3</td>
<td>3.7</td>
<td>23</td>
</tr>
<tr>
<td>Carrots</td>
<td>Root</td>
<td>0.9</td>
<td>0.2</td>
<td>8.6</td>
<td>36</td>
</tr>
</tbody>
</table>
References


Hiatt, B. 1967 The food quest and the economy of the Tasmanian Aborigines. *Oceania* 38(2):99-133


Mollison, B. 1974 *A Synopsis of Data and the Tasmanian Aboriginal People*. Ch.7


Plomley, N.J.B. 1966 *Friendly Mission*. Tasmanian Historical Research Association