

## The Petun and the Beaver

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### *Dedication*

This paper is dedicated to the late and esteemed Dr. Howard G. Savage, through whose interest, example and enduring inspiration analysis was conducted of faunal samples recovered from twenty archaeological sites in the Petun country near Collingwood, Ontario.

### *Abstract/Resumé*

The interaction between the Petun Indians and the beaver is examined.

*L'interaction entre les indians Petun et le castor est examinée.*

### *Introduction*

Expansion of the data base from eight to twenty Petun (Wyandot/*ouendat*) area historic village sites confirms the interpretation made more than twenty years ago that the Petun specialized in beaver hunting (Garrad 1981:31-38), and to a much greater extent than either the Hurons or the Neutrals (Prevec & Noble 1983:50). The twenty Petun sites now reported are all of the fur-trade period, having both European wares and beaver bones.

The proposal that the "Petun" were a mix of *ouendat* groups which migrated into the Petun country near Collingwood, Ontario, for the purposes of exploiting the abundant beaver supply when the developing fur trade created a commercial value for beaver pelts, principally in the protohistoric (ca.1580-1600, or GPB1) period (Garrad 1981:31), is expanded to suggest the Petun were able to exert near-monopolistic control over extensive beaver-rich territories and to exclude the Hurons from them.

That the villages of the Petun country were themselves situated in an area of abundant beaver is confirmed. The suggestion that access to beaver was a factor in positioning the Sidey-Mackay site (Prevec 1979b:38), is confirmed, and extended to apply to both local and more distant beaver resources, and also to other villages.

### *Analysis of Faunal Remains from Twenty Petun Village Sites*

The present accumulated record of the faunal remains from twenty Petun village sites is the combined result of individual sites analyses over a period of time by Dr. Howard G. Savage in 1966, and his students and associates between 1974 and 1996. The progressing work and growing number of faunal analysis reports was summarised in detail in 1981 by Peter Hamalainen and listed by C. J-Andersen in 1987 (1987b), and by Janet Cooper and Howard G. Savage in 1994. The pertinent summaries for nineteen Petun sites excerpted from this last work are presented in Appendix A to this document, to which is added an excerpt from the subsequent analysis of the faunal remains from the Latimer BbHa-12 site by Maria De Angelis-Pater (1996).

### *The Four Predominant Mammals on the Twenty Petun Sites*

The number of mammal species identified in a representative Petun faunal collection is typically about twenty, but could be as high as fifty-two. In his summary, Hamalainen found twenty-eight (Hamalainen 1981:28,106). In the following (Table I), the four predominantly represented animal species are given as a percentage of all identified mammals, rounded to a whole figure, for each site by each faunal analysis report.

Faunal samples which are from surface collections are so identified because a test of surface-collected *versus* excavated and screened faunal collections indicated that surface collections tend to favour the larger and more visible bones, with the smaller bones under-represented (Hamalainen 1983:57). A similar bias might be expected in the samples excavated by William J. Wintemberg (1946) at the Sidey-Mackay BbHa-6 site in 1926, and by the University of Toronto at the MacMurchy BcHb-26 site in 1953 (Bell 1953), which were not screened. All samples excavated by the writer were screened through ¼" mesh. The smaller faunal samples may not be representative. Some sites have more than one report because more than one sample was analysed. If differing beaver percentages resulted, they are averaged. No samples were floated.

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**Table I: The Four Predominant Mammals on Twenty Petun Village Sites.**

Percentages are of all identified mammals, rounded to a whole figure, per report.

Sites are in geographical sequence south to north.

deer = White-tailed deer; bear = black bear; *canis* = species *canis* (dog, wolf, and fox) undifferentiated.

Site	(1)	(2)	(3)	(4)
LS	beaver 24%	bear 13%	woodchuck 8%	moose 8%
SM	beaver 43%	<i>canis</i> 18%	woodchuck 10%	bear 8%
MV	beaver 54%	woodchuck 22%	bear 16%	dog 2%
MV	beaver 41%	woodchuck 21%	dog 11%	bear 11%
WT	beaver 34%	woodchuck 16%	deer 11%	bear 10%
HL	beaver 35%	bear 24%	deer 16%	dog 12%
HL	beaver 37%	deer/caribou/elk 30%	bear 17%	woodchuck 7%
CR	deer 45%	beaver 17%	bear 12%	dog 10%
CR	deer 24%	beaver 22%	<i>canis</i> 21%	woodchuck 11%
CR	deer 39%	beaver 29%	<i>canis</i> 15%	bear 10%
GF	woodchuck 42%	beaver 32%	bear 7%	dog 6%
G	bear 30%	beaver 24%	dog 15%	woodchuck 15%
KC	beaver 27%	dog 16%	bear 14%	deer 10%
KC	beaver 27%	<i>canis</i> (dog/wolf) 35%	bear 13%	deer 12%
KC	beaver 52%	bear 22%	<i>canis</i> 10%	deer 9%
McE	woodchuck 38%	beaver 23%	<i>canis</i> (dog ? 7%	bear 7%
YM	beaver 71%	deer 10%	woodchuck 5%	bear 4%
YM	beaver 59%	woodchuck 15%	deer 8%	<i>canis</i> (dog or wolf) 5%.
MQC	woodchuck 30%	beaver 28%	dog 11%	deer 9%
PR	bear 33%	woodchuck 21%	beaver 21%	dog 12%
RB	beaver 39%	bear 21%	woodchuck 13%	dog 8%
MA	woodchuck 52%	beaver 15%	bear 15%	dog 3%
MA	bear 39%	woodchuck 34%	beaver 15%	<i>canis</i> 6%
MM	beaver 45%	woodchuck 22%	bear 18%	<i>canis</i> 3%
HCL	woodchuck 38%	beaver 28%	bear 19%	red fox 3%
HCU	woodchuck 34%	beaver 29%	bear 19%	dog 7%
HCU	woodchuck 40%	beaver 31%	bear 17%	<i>canis</i> 3%
PM	bear 28%	beaver 23%	dog 19%	woodchuck 13%
PM	bear 24%	beaver 23%	dog 23%	woodchuck 10%
PM	dog/ <i>canis</i> 25%	woodchuck 20%	bear 20%	beaver 15%
PM	beaver 34%	bear 23%	woodchuck 14%	raccoon 8%
PF	bear 29%	beaver 18%	woodchuck 16%	dog 12%

Table 1 (continued): Comments and Sources

Below, following the abbreviated site name used above, is the registered name of the site, its Glass Bead Period (GBP) as presently understood, the name of the analyst, date of the report, and any comment. The GBPs generally used in Ontario (GBP1 ca. 1580-1600; GBP2 1600-1625/30s; GBP3 1630s-1650) are not precise enough for Petun work. GBP2 is here divided into GBP2a (1600-1616), GBP2b (1617-1625/30s), and GBP3 into GBP3a (1630s-1641) and GBP3b (1642-1650). In 1650, the Petun left the subject area.

LS = Latimer BbHa-12 [GBP1-2a]: De Angelis-Pater 1996:12. Surface collection.

SM = Sidey-Mackay BbHa-6 [GBP1]: Prevec 1979a:15, 1979b:15.

[The expansion of the analysed mammalian element sample from 626, of which 271 were beaver, (Prevec 1979a:14-15) to 1339, of which 580 were beaver (Prevec 1979b:14-15) made no difference to the beaver percentage, in each case 43.3%, or to the *canis*-woodchuck-bear sequence].

MV = Melville BbHa-7 [GBP2]: Sheahan 1980:calculated from Table 5.

MV = Melville BbHa-7 [GBP2]: Hamalainen 1981:220. [Melville beaver percentages average 47%].

WT = White BcHa-1 [GBP1]: Hamalainen 1974, 1981:206.

HL = Hamilton-Lougheed BbHa-10 [GBP2b-3a]: Hamalainen 1981:226. Surface collection.

HL = Hamilton-Lougheed BbHa-10 [GBP2b-3a]: De Angelis-Pater 1995:13. Surface collection from Area 4. [Hamilton-Lougheed beaver percentages average 36%]

CR = Connor-Rolling BcHb-3 [GBP2b-3a]: Hamalainen 1981:230-231.

[Bias of surface collection favours deer].

CR = Connor-Rolling BcHb-3 [GBP2b-3a]: Le Moine 1982:37.

CR = Connor-Rolling BcHb-3 [GBP2b-3a]: De Angelis-Pater 1995. Small surface collection.

[Connor-Rolling beaver percentages average 23%]

GF = Graham-Ferguson BcHb-7 (GBP2b-3a): Cooper 1978, 1979:5,10, incorporating Cooper 1978, and recalculated by Hamalainen 1981:236.

G = Glebe BcHb-1 [GBP2b-3a]: Hamalainen 1981:244.

KC = Kelly-Campbell BcHb-10 [GBP3]: Hamalainen 1981:251; Katzenberg 1979:13.

KC = Kelly-Campbell BcHb-10 [GBP3]: Andersen 1980:8,62. [Among the five species of turtle (1980:12), one may have been a pet: Andersen 1987a].

KC = Kelly-Campbell BcHb-10 [GBP3]: De Angelis-Pater 1995:50,64. Small surface collection.

[Kelly-Campbell beaver percentages average 35%]

McE = McEwen BcHb-17 [GBP3]: Le Moine 1982:12, 16.

YM = Young-McQueen BcHb-19 [GBP1-2a]: calculated from Saunders 1976.

YM = Young-McQueen BcHb-19 [GBP1-2a]: Hamalainen 1981:245; Shalinsky 1979:18.

[Young-McQueen beaver percentages average 65%]

MQC = McQueen-McConnell BcHb-31 [GBP1]: Hamalainen 1981:261.

PR = Pretty River BcHb-22 [GBP2b-3a]: Berg 1988. Surface collection.

RB = Rock Bottom BcHb-20 [GBP2]: Hamalainen 1981:267.

MA = McAllister BcHb-25 [GBP1-2a]: Hamalainen 1981:276-277. [Noting the absence of reptile and white-tailed deer, Hamalainen speculated that the sample was too small to be representative].

MA = McAllister BcHb-25 [GBP1-2a]: Im 1983:15. Beaver ranked third in the number of identified elements, but first in MNI. [McAllister beaver percentages average 15%]

MM = MacMurchy BcHb-26 [GBP1-2a]: Hamalainen 1981:272 citing Savage 1966.

HCL = Haney-Cook BcHb-27 [GBP 2b-3a]: Ellis 1984:125-158

HCU = Haney-Cook BcHb-27 [GBP2b-3a]: Hamalainen 1981:282.

HCU = Haney-Cook BcHb-27 [GBP2b-3a]: Ellis 1984:159-181 [Haney-Cook Upper beaver averages 30%]

PM = Plater-Martin BdHb-1 [GBP3]: Hamalainen 1981:287-289, includes Wodinsky 1979.

PM = Plater-Martin BdHb-1 [GBP3]: Wodinsky 1979:14. From part of Midden #5.

PM = Plater-Martin BdHb-1 [GBP3]: Hurlburt 1980. [Continuing the analysis of material from Midden #5 begun by Harold Wodinsky 1979].

PM = Plater-Martin BdHb-1 [GBP3]: Dryer 1995. From Area 2.

[Plater-Martin beaver percentages average 24%]

PF = Plater-Fleming BdHb-2 [GBP3]: Hamalainen 1981:298.

<><>(end of Table 1)<><>

### *The Beaver and the Petun, Huron and Neutral*

It is suggested that the good and available supply of beaver attracted the Petun to their historic location when the fur trade commenced (Garrad 1980:105; 1981:31-38; Hamalainen 1981:125). The Petun exploited the beaver supply "intelligently, utilizing the available resources to their best advantage" (Le Moine 1982:56).

All Petun village sites produced high frequencies of beaver elements (Hamalainen 1981:59). On nine of the above 20 sites: (Latimer BbHa-12, Sidey-Mackay BbHa-6, Melville BbHa-7, White BcHa-1, Hamilton-Lougheed BbHa-10, Kelly-Campbell BcHb-10, Young-McQueen BcHb-19, Rock Bottom BcHb-20, and MacMurchy BcHb-26), there are more bones of beaver than any other identified mammal, ranging from 24% to 65% of the total mammals. On eight others: (Connor-Rolling BcHb-3, Graham-Ferguson BcHb-7, Glebe BcHb-1, McEwen BcHb-17, McQueen-McConnell BcHb-31, Haney-Cook Lower BcHb-27, Haney-Cook Upper BcHb-27, and Plater-Fleming BdHb-2) beaver is in second place, ranging from 18% to 32%. On two other sites: McAllister BcHb-25, and Plater-Martin BdHb-1, different parts of the site gave different results. Two reports on McAllister BcHb-25 agree that the beaver stands at 15%, but differ in the ranking, giving both second and third place. Four reports from Plater-Martin BdHb-1 varyingly give beaver percentages at 15%, 23%, 23% and 34%, and in first, second and fourth place. Only at one site, Pretty River BcHb-22 is beaver in third place, at 21%. The lowest recorded beaver percentages anywhere in the Petun country are from the McAllister BcHb-25 and part of Plater-Martin BdHb-1 sites at 15%. The highest is 59%-71% at Young-McQueen BcHb-19.

William J. Wintenberg was the first to observe the dominance of beaver on a site in the Petun country. In his report of his 1926 excavations on the Sidey-Mackay BbHa-6 site at Creemore, he commented, in evident surprise, that "whereas bones of deer are most abundant in collections from other .. sites, in the Sidey-Mackay collection, bones of deer took second place" to beaver (Wintenberg 1946:155). The above figures indicate that Wintenberg's observation not only applies to Sidey-Mackay BbHa-6, but to 50% of all Petun area villages for which data are now available. The average percentage of beaver in the total identified mammalian sample from twenty Petun area historic village sites, as indicated in thirty-two faunal analysis reports, is above 30%. This compares with an average of 8% for three Huron and 7% for ten Neutral fur trade period sites.

Beaver percentages available for three Huron fur-trade period sites are: Maurice 13% (Savage 1971b), Molson 5% (Lennox 2000:137), Robitaille 7% (Savage 1971a); and for ten Neutral sites are: Fonger 7%, Christianson 19%, Thorold 1%, Walker 4%, Hamilton 3%, Brown 11%, Caron 9%, Hood 10%, Bogle I 0%, Bogle II 8% (Prevec and Noble 1983:44,51; Stewart 2000:98-99).

The Huron Molson BcGw-27 site is assigned to GBP2 because of its European trade goods, particularly glass trade beads (Latta 2000:72-73). When rimsherds from Molson were tested against all Petun villages, the highest Coefficient of Similarity was to the GBP2 (1600-1625/30s) Melville BbHa-7 site.

It has been suggested that to the Neutral the beaver "was only one and not a particularly important medium of exchange", but at the same time the Neutral obtained their "French trade goods .. through their .. intermediaries in Huronia and Petunia" where "beaver hunting clearly was more prevalent than in Neutralia" (Prevec & Noble 1983:50). This suggestion might be considered against the frequent references and inferences in the primary sources to Neutrals being present in the Petun country. If a segment of the 'Petun' were actually visiting or resident Neutrals hunting beaver away from home, and exchanging pelts for European goods locally (Petunia/Huronia), they could return to Neutralia with European goods after a successful season without transporting pelts all the way from Neutralia. Only the Christianson villagers appear to have taken much of an interest in local beaver resources.

### *The Beaver as a Petun Food Resource*

Beaver individual counts and meat estimates are high "indicating that this species was a major food source" (Hamalainen 1981:59). The question arises of how to distinguish beaver remains used for food from those killed for their furs. The answer probably is that in the absence of an observable schlepp effect, any local beaver of the fur trade period provided both food and fur.

That beavers were cooked for food is indicated by "charring and cut marks on the bones, but also the presence

of elements from almost all parts of their bodies" (Prevec 1979b:20,39). At area 4 of the Hamilton-Lougheed BbHa-10 village site, Maria De Angelis-Pater found that "only 5.9% of the beaver bones show evidence of calcination or burning, and the majority (88.2%) of the beaver bones were of juveniles killed in the spring, fall and winter. These would provide much less usable meat than adults". She concludes that "Beavers were .. primarily hunted for pelt... the use of beaver as a food source was .. secondary and incidental". However, she also notes the possibility that beavers may have been prepared for consumption in ways that left no evidence on the bone (De Angelis-Pater 1995:19-21). This could include boiling.

Beavers were more certainly a food resource at the Sidey-Mackay BbHa-6 village site, where all bones of the beaver skeleton were present, many being "cut, charred, or gnawed" (Prevec 1979b:39). Charred, cut and gnawed beaver bones were recorded at the Plater-Martin BdHb-1 village site (Wodinsky 1979:21-24). Beaver bones at the Kelly-Campbell BcHb-10 village site had cut marks which "obviously points to beaver as a food source" (Katzenberg 1979:35,50). At the Graham-Ferguson BcHb-7 village site some beaver bones show heat and cut marks, indicating a "valuable food resource .. of secondary importance" (Cooper 1978:23,25-26,38; 1979:8). Butchering marks were observed on beaver bones at the Connor-Rolling BcHb-3 village site (Le Moine 1982:44). On the other hand, evidence of care in the skinning, as if to remove the pelt without harm to it, is accepted as evidence that the fur is to be traded. This was noted at the Sidey-Mackay BbHa-6 village site (Prevec 1979b:38).

"Beavers must have been a very reliable source of food for the Petuns since even today they can still be found in the Collingwood area" (Im 1983:15; Garrad 1981:32). Both recent and old beaver dams are still to be found.

### *The Beaver and the Fur Trade*

"The Petun .. lived in an area that offered ideal beaver habitat" (Cooper 1978:24; Hamalainen 1981:97). Not surprisingly therefore " .. the vast majority of the sites exhibit a predominance of Beaver bones in the sample. This does not indicate much about the cultural affiliations of the particular occupants of a site, but it does say a lot about their economics" (Le Moine 1982:5). "The abundance of beaver remains (at Kelly-Campbell) .. implies that they were exploited for the purpose of the fur trade .. clothing and robes" (Andersen 1980:17,18). At the Young-McQueen BcHb-19 village site ".. the inhabitants can be said to be specializing in trapping beaver" (Shalinsky 1979:31)

All twenty Petun area archaeological sites mentioned in this paper were villages with artifactual evidence of trade for European goods. The earliest (GBP1) sites have only fragments of European metal, but from GBP2 there is a considerable and enlarging suite of European wares, including glass beads. It is proposed that the presence on a village site of these imports from Europe, together with an unusually high percentage of beaver bones, is a positive indicator that the people of the village were engaged in the fur trade, were exploiting beaver for the fur trade, and that they occupied their village during the fur trade period (Garrad 1981). The suggestion that the proximity of beaver played a part in the locating of the Sidey-Mackay BbHa-6 village (Prevec 1979b:38) may well apply to other villages, and perhaps even to all villages in the entire Petun country.

Beavers were not the only fur-bearing animals desired by the fur traders, and perhaps the low beaver numbers on fur trade period sites in the Neutral country were because other animals or items of exchange were more attractive in those areas (Prevec & Noble 1983:50). Whatever the reason, it seems to have similarly applied to the Huron. For the Petun however, the evidence is for a specialisation in beavers for the fur trade (Hamalainen 1981:95-96; et al).

At the Sidey-Mackay BbHb-6 site William J. Wintemberg did not perceive the symbiotic relationship of the presence of more beaver bones than all other identified mammals, and a piece of European brass. This was because of doubt concerning the provenance of the metal (1946:154, 156, 181). At the MacMurphy BcHb-26 site, W. Douglas Bell (1953:72) noted the correlation between increasing numbers of beaver remains and hide scrapers during the lifetime of the village, which he thought indicated the beginning of the fur trade.

*On the supposed decline of beaver in the Petun country*

It has been suggested that the Petun beaver supply declined through time both as a trade item and as food, through over-trapping (Prevec 1979b:43; Wodinsky 1979:44), and the Petun consequently expanded their shell artifact production to maintain their trade, and added more woodchuck, *canis* sp., and black bear to their diet (Le Moine 1982:52,54; Wodinsky 1979:40, 42-44).

To test this suggestion, the sites were rearranged by Glass Bead Period (GBP). Three GBP1 (ca. 1580-1600) sites (White BcHa-1 34%, Sidey-Mackay BbHa-6 43%, and McQueen-McConnell BcHb-31 28%) averaged 35% beaver. Four GBP1-2a (ca. 1590-1616) sites (Latimer BbHa-12 24%, Young-McQueen BcHb-19 65%, McAllister BcHb-25 15%, and MacMurchy BcHb-26 45%) averaged 37% beaver. Two GBP2 (ca. 1600-1625/30s) sites (Melville BbHa-7 47%, and Rock Bottom BcHb-20 39%) averaged 43% beaver. Seven GBP2b-3a (ca. 1625-1641) sites (Hamilton-Lougheed BbHa-10 36%, Connor-Rolling BcHb-3 23%, Graham-Ferguson BcHb-7 32%, Glebe BcHb-1 24%, Pretty River BcHb-22 21%, Haney-Cook Lower BcHb-27 28% and Haney-Cook Upper BcHb-27 30%) averaged 29% beaver. Four GBP3 (ca. 1625/30s-1650) sites (Kelly-Campbell BcHb-10 35%, McEwen BcHb-25 23%, Plater-Martin BdHb-1 24%, and Plater-Fleming BdHb-2 18%) averaged 25%.

The figure for McEwen BcHb-25 includes material from its underlying Prehistoric or GBP1 component, which is mixed into the GBP3 occupation. Haney-Cook BcHb-27 includes both villages, Lower and Upper.

The earlier-to-later GBP1/GBP1-2a/GBP2/GBP2b-3/GBP3 pattern, 35%-37%-43%-29%-25%, might indeed indicate a decline in the local beaver population after GBP2 (1630s), but there are factors to consider.

The first possibility is that the decline was not in the beaver population but in the availability of hunters. Warfare from 1640 onward, village removals and reconstructions, and increasing rates of sickness and deaths, may well have negatively impacted beaver hunting activities. As the Petun population shrank due to diseases and warfare, the Petun country was abandoned in stages south to north. Warriors could not both undertake long hunting expeditions to remote areas and stay home to defend the diminishing homeland.

It might be expected that after the major abandonments of the southern river valleys (Mad, Noisy, Boyne, Pine) following the Iroquois attack on *Ehwaë* (Hamilton-Lougheed BbHa-10) in 1640, short expeditions from the northern villages were still possible, but ownership of the beavers was no longer clearly vested in a villages residing in and controlling the territory, and could be contested by other villages and other peoples.

The first (GBP1) Petun settlements were in the valleys of the rivers Mad and Pretty, respectively at the southern end and in the centre of the Petun country (FIGURE I: MAP). The four villages of the Mad River sequence (Sidey-Mackay BbHa-6, Melville BbHa-7, Hamilton-Lougheed BbHa-10 and Connor-Rolling BcHb-3) average 37% beaver. These were all abandoned by 1642. The Pretty River sequence (McQueen-McConnell BcHb-31, Young-McQueen BcHb-19, and Pretty River BcHb-22) average 38%, largely due to YM Young-McQueen's phenomenal 65% average but no data are available later than GBP3a. Both sequences score significantly higher than the sites of the Silver Creek sequence (McAllister BcHb-25, MacMurchy BcHb-26, Haney-Cook Lower BcHb-27 and Haney-Cook Upper BcHb-27), which started somewhat later in GBP1, and average 27%. The later Batteaux River sequence (Glebe BcHb-1, Graham-Ferguson BcHb-7, Kelly-Campbell BcHb-10 and McEwen BcHb-17) which commenced GBP2b, averages 28% beaver. The two GBP3 sites near the Nottawasaga Bay shore, (Plater-Martin BdHb-1 and Plater-Fleming BdHb-2), average 21%, and stand alone in this, as they do in many respects. It could seem that the earliest in-migrations, Sidey-Mackay BbHa-6 on the Mad River, and McQueen-McConnell on the Pretty, seized the most productive valleys, and later movements were necessarily to less productive ones, and that the loss of control of the Mad River by withdrawal to the north had a serious effect. This is to ignore the likely compensating importation of distant beaver as wholly made pelts, not visible as a schlepp effect which depends on partially deboned carcasses. The upper Silver Creek (Haney-Cook BcHb-27 villages) and Nottawasaga Bay (Plater-Martin BdHb-1, Plater-Fleming BdHb-2) villages were likely exploiting the Beaver Valley and further west.

This brings into focus the question of where were the territories exploited by the Petun for beaver procurement at different times, and how far they extended beyond the geographic limits of the Petun country. This topic will

be examined under the heading *Petun Beaver Procurement Territory*.

Janet Cooper and Howard G. Savage (1994) concluded, after reviewing Peter Hamalainen's work (1981) that there was "no appreciable depletion of the beaver population throughout the entire period of Petun occupation".

### *The schlepp effect*

The term 'schlepp' arises from the proposal that "the larger the animal and the farther from the point of consumption it is killed, the fewer of its bones will be 'schlepped' back to the camp, village or area" (Daly, 1969:149; Hamalainen 1981:49). "The schlepp effect .. is encountered when the species so represented has been killed, skinned, and butchered distant from the habitation site and only the meat and skin, with the feet and sometimes the head attached, are returned to the camp .. The schlepp effect can be expected to occur most frequently with the remains of either large animals which would have been inconvenient and impractical to transport intact, such as bear, or those species which would have been valued more for their fur than their meat" (Andersen 1980:15-16). Consequently, the schlepp effect should be noticeable with the largest animals in the Petun faunal samples, elk and bear. With bear it is more usual than not (e.g. Andersen 1980:10,15; De Angelis-Pater 1995:45,51; Dryer 1995:25-26,29; Ellis 1984:86-87; Hamalainen 1981:61; Hurlburt 1980:22,24,46; Im 1983:15,25; Le Moine 1982:16,23,24,37; Shalinsky 1979:24).

At the Kelly-Campbell BcHb-10 site, the schlepp effect was observed with raccoon. perhaps implying raccoons were killed for fur for clothing rather than for meat (Andersen 1980:10,15-16,18; Hamalainen 1981:69; Katzenberg 1979:23).

Speculation that over-trapping caused the numbers of local beaver to decline over time (Prevec 1979b:43), causing the Petun to turn to woodchuck for food, and to manufacturing shell artifacts for trade (Wodinsky 1979:44). is not supported by the evidence. If a shortage of beaver locally caused trapping further afield, this is not detected as a schlepp effect (Hamalainen 1981:96).

Most reports concur, even emphasise, that no schlepp effect is observable in the beaver samples, because most of the skeletons are present (e.g. Cooper 1978:24,38-39; Prevec 1979b:39, 41; Wintemberg 1946:155). However, at Haney-Cook BcHb-27 and Kelly-Campbell BcHb-10 village sites, a possible schlepp effect is suggested with beaver (De Angelis-Pater 1995:51; Ellis 1984:85-86). Hamalainen suggested that on Petun area sites there is indeed a schlepp effect in beaver samples, but that it is constant and shows no change over time. This, he speculated, was due to a dietary preference for the tail and rear paws rather than because of the demands of the fur trade (1981:60,96-97). Nevertheless, if the Petun were obtaining beaver from as far away as Holland Marsh in one direction and the Grand, Maitland and Sydenham Rivers in the other (see *Petun Beaver Procurement Territory*), some schlepp effect is to be expected.

### *Woodchuck and the Supposed Beaver Decline*

Petun area faunal samples consistently include high percentages and individual counts of both beaver and woodchuck (Hamalainen 1981:57). On seven sites (Table I) woodchuck exceeds beaver. On eight sites woodchuck is in second position, in five instances immediately following beaver. It would seem improbable that the popularity of the woodchuck indicates it was a fur trade staple ranking with the beaver. One suggestion is that as beaver declined through time through over-trapping, the Petun added more woodchuck, together with *canis* sp., and black bear, to their diet (Le Moine 1982:52,54; Prevec 1979b:43; Wodinsky 1979:40, 42-44). The use of woodchuck as food is both deduced and indicated by charred/calced bones (Andersen 1980:20; Cooper 1978:23,25-26,36,38; Ellis 1984:48; Hamalainen 1981:57-58,123; Le Moine 1982:13; Sheahan 1980:table 10; Wodinsky 1979:21), but the supposition that this was predicated on a decline in the available beaver is not supported by the Schlepp effect, and is rejected by Hamalainen. Other suggestions are that woodchuck were used for tool production (Le Moine 1982:13); that they were killed as a means of pest control (Ellis 1984:48; Hamalainen 1981:58-59; Le Moine 1982:13,30), and that some may simply be intrusive, having made their home in a midden and died there (Andersen 1980:20; Cooper 1978:36,38, 1979:8; Katzenberg 1979:30,37,50).

It is suggested that if the Petun compensated for any decline in the locally available beaver supply by hunting further afield (see *Petun Beaver Procurement Territory*) there is no direct and consequential correlation between beaver and woodchuck counts. Beaver and woodchuck hunting were specialized activities in different geographic territories (Hamalainen 1981:116,117) and possibly had different status implications.

### *Beaver and the Secondary Village (Odawa ?) Phenomenon*

In the Petun country, particularly in the northern Deer territory, a number of the larger villages have smaller, related, contemporary, suburb or secondary villages, usually close enough that their geographic proximity is apparent on a map (for example McAllister BcHb-25 and MacMurchy BcHb-26, Haney-Cook Lower and Upper BcHb-27, Plater-Martin BdHb-1 and Plater-Fleming BdHb-2 on Figure 1 MAP). That the large and small villages of each pair are contemporary is demonstrated by the similarity of many artifacts, but subtle differences suggest that at least one of the functions of the smaller secondary villages was to house strangers or visitors. Given the history of the Petun, these visitors certainly in some instances included Champlain's *Cheveux-relevés* or Odawa, who wintered with the Petun (Garrad 1999). The beaver percentages reveal a more obvious distinction. In each case, the beaver/mammal bone ratio in the secondary village is less, usually, with the exception of the Haney-Cook villages, a lot less, than that of the larger one. In the four following examples, the secondary villages possess beaver/mammal bone ratios of only 33%-75% of their dominant villages.

In the known pair Hamilton-Lougheed BbHa-10 and Connor-Rolling BcHb-3, the first has 36% beaver, the second 23%, or 64% of the larger village; the pair Kelly-Campbell BcHb-10 and McEwen BcHb-17 respectively possess 35% and 23%, or 66%; the pair MacMurchy BcHb-26 and McAllister BcHb-25 possess respectively 45% and 15%, or 33%; and the pair Plater-Martin BdHb-1 and Plater-Fleming BdHb-2 have 24% and 18%, or 75%.

The Glebe BcHb-1 is thought to have a substantial Odawa presence has a beaver percentage of 24%. Despite the 32% beaver figure for the nearby contemporary Graham-Ferguson BcHb-7 village, they do not form a pair because the Glebe BcHb-1 is the larger of the two, and the artifacts do not compare closely enough. It follows that it is not because a village is the smaller within a pair that it has a lower beaver count, but because it was occupied during the winter by Odawa and perhaps other Algonquins. This in turn implies the Odawa did not participate in local beaver procurement during their winter stay.

Ceramics suggest an Odawa presence at both the Glebe BcHb-1 (24% beaver) and Connor-Rolling BcHb-3 (23% beaver). If 23% and below is accepted as a meaningful indicator of Odawa presence, then suspected Odawa presences at the McEwen BcHb-17 (23%), McAllister BcHb-25 (15%) and Plater-Fleming BdHb-2 (15%) sites are confirmed.

The Haney-Cook BcHb-26 site was long thought to be one village but is now interpreted as comprising a pair of adjoining villages, although individual village boundaries are as yet unknown. The sample analysed by Peter Hamalainen (1981) came from the area now deemed the Upper village, and that analysed by Patricia J. Ellis and Chris. Mycan (Ellis 1984) mainly from the Lower village, but also partly the Upper village. This report easily divided into the two components, but revealed that while the beaver percentages in each village (30% and 28%) were at the Petun average (30+%), the disparity between the larger Upper village and smaller Lower village was minimal (2%). This is unlike other paired villages. No reason for this inconsistency is certainly known, but the answer may be in that these two villages are unique in being upstream of any beaver activity in the streams which commence as springs near the villages, but control access over the Blue Mountain to the beaver resources on the escarpment heights and in the Beaver Valley and further west..

A possible explanation for the lower percentages of beaver bone in the villages seasonally favoured by the Odawa is that the beavers accompanying the nomadic Odawa arriving to winter with the Petun were prepared pelts rather than carcasses, not observable as a schlepp effect.

### *Petun Beaver Procurement Territory*

Peter Hamalainen (2003) is of the opinion that the classic Petun country along the Niagara Escarpment south of Nottawasaga Bay, where the Petun villages were, was “by itself not large enough to supply the beaver necessary for the heavy Petun involvement in fur trade which the faunal remains indicate”. He had earlier identified the Minesing Swamp and the Holland Marsh as areas where the Petun hunted specifically for beaver (1981:116,117), and now adds that “it can be argued that the Petun also exploited the poorly drained lands on top of the escarpment, which would have provided good beaver habitat, while still farther to the west are the Beaver Valley and the Sydenham River” (2003). There is support for all these suggestions.

Two of a number of similar maps by the Baron Lahontan, Louise-Armand de Lom D’Arce de Lahontan, are *A General Map of New France Com. call’d Canada*, 1703 (Lahontan 1970 1:157) and *Carte Generale de Canada*, 1704 (Crompton 1925:end). Both specify three areas of southern Ontario variously as “Beaver Hunting of ye Iroquoise”, “Beaver huñ of ye Iroquoise”, “Bea huñ of Iroquoise” (1703) and “Chasse de castor des Iroquois”, “Pais de Chasse de castor des Iroquois” (1704). “The eastern area no doubt indicates the Minesing Swamp and Holland Marsh. The area to the south seems to indicate the headwaters of the Grand River” (Hamalainen 2003). Prominent on both maps are the legends “Theonontasaronons or Hurons” (1703), “Tionontateronons Appelles Hurons” (1704), accompanied by ikons representing “Savage Vill. dest. by ye Iroquoise” (1703) , “Sont des Nation sauvage détruites par les Yroquois”.(1704), north of “Thionontati R.” which flows into Lake Huron. This placement raises the questions of what period of time, pre- or post-Dispersal, these villages are meant to represent, and how geographically accurate the maps are. By 1701 the Petun-Wyandot had been residing at St. Ignace, beyond Mackinac island, for three decades and were preparing to move into the Detroit valley (Tooker 1978:398,400). If the maps are geographically accurate these villages could represent logical contemporary hunting activities along the Saugeen or the Maitland from the west. On the other hand, these villages would not have been destroyed by the Iroquois, with whom there was now peace.

Lahontan’s related account of his canoe voyage from Manitoulin Island to “the River of *Theonontaté*” resolves these questions. “This Country is the ancient Seat of the *Hurons*, as it appears from the Name they give to their Nations in their own Language, viz. *Theonontateronons*, i.e. the Inhabitants of *Theonontate*. But after the *Iroquefe* had, on divers occasions, taken and defeated great numbers of ‘em, the reft quitted the Country to avoid the like Fate”. An accompanying editorial footnote rejects the identification of “the River Theonontaté with the Maitland, in Huron County, Ontario. It was more probably the Nottawasaga, in Simcoe County, where the Tionontaté had their earliest home” (Lahontan 1970 1:154). The conclusion is that in regard to the placement of the Petun villages near Lake Huron, Lahontan’s maps are meant to represent pre-Dispersal events in the former Petun country more than half a century earlier, and have only token geographic value.

The “headwaters of the Grand River” arise in swamps on the Dundalk Till Plain watershed “from which issue the headwaters of the Saugeen, Maitland and Grand rivers, as well as those of the Nottawasaga” (Chapman and Putnam 1966:204). Nottawasaga river’s tributaries rising in this area include the Pine, Boyne, Mad and Noisy, all of which lead to the Petun country. The last two lead directly to, and are controlled by, the Sidey-Mackay BbHb-6 village site sequence (Melville BbHa-7, Hamilton-Lougheed BbHa-10). Access from the Petun country via these tributaries of the Nottawasaga is consistent with the oral tradition of a Petun camp on the Grand River at Elmira (Cunningham 1937). The route from the Petun country to the Grand, its portages, and its further connections, have been recorded. Governor Simcoe considered including it in a “communication” between Penetanguishene and the River Thames (Hunter 1927).

The Beaver River was named by surveyor Rankin because of the prolific evidence of beaver dams, and ponds. Presumably related are numerous swamps and meadows. Before the arrival of the Petun nearby, the Beaver Valley was seasonally occupied by the *Cheveux-relevés* Odawa (Garrad 1999). That they continued to exploit their territory during the fur trade period of their alliance with the newly-arrived Petun is only logical, and supported by the presence in the Valley of iron trade axes. A trail from the Beaver, along the tributary Indian Brook to its source, and beyond over the cuesta, leads to the Haney-Cook BcHb-27 villages and also beaver habitat among the poorly drained lands on top of the escarpment.

While it may be that the Petun had to share the beaver resources of Minesing Swamp and Holland Marsh with

the Hurons, they were placed to prevent Huron access to the resources of their own country, the Beaver Valley, and Grand River headwaters, over which they appear to have enjoyed a monopoly.

Anne M. Katzenburg's suggestion that "the driving force behind the Iroquois attacks which eventually led to the decimation and dispersion of the Petuns" may have related to the Petun still having access to abundant beaver when stocks were declining elsewhere (1979:52) may be more insightful than at first appears. Both attacks, on *Ehwaë* (Hamilton-Lougheed BbHa-10) in 1640, and *Etharita* (Kelly-Campbell BcHb-10) in 1649, were on successive principal villages of the people who had accessed the large beaver pool at the headwaters of the Grand River. With the Petun dispossessed, and the Neutral soon after dispersed, this pool was free to become as Lahontan described it, "Beaver Hunting of ye Iroquoise".

### Conclusions

When beavers developed a commercial value because of the fur trade, migrations to areas where beavers were plentiful, but which also provided access to French goods, were a logical consequence. The principal of these were an amalgam of peoples of probably different origins, but presumably all *ouendat*, who migrated into *Cheveux-relevés* Odawa territory below the Niagara Escarpment near Collingwood, which was not only in itself beaver-rich but gave access to extensive beaver-rich hunting grounds further west. These people became collectively known as the Petun. Their alliance with the *Cheveux-relevés* Odawa, who traded directly with the French on the French River (Garrad 1999), not only gave the Petun access to beavers in Odawa-controlled territories such as the Beaver Valley, but enabled them to bypass any Huron attempts to curtail their access to French goods., while preventing Huron access to territories under their control.

The extent of their commercial and political success is measured by the presence on Petun sites of French trade goods and beaver bones, the latter in percentages (average 30% of identified mammal samples) far above the 8% and 7% for contemporary Huron and Neutral villages. The Petun country itself, and territories the Petun exploited from it, allowed the Petun to procure beaver on a much larger scale than was possible in the homelands of the Huron and Neutral.

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(FIGURE I: MAP: Beaver Remains on Twenty Petun Area Sites)

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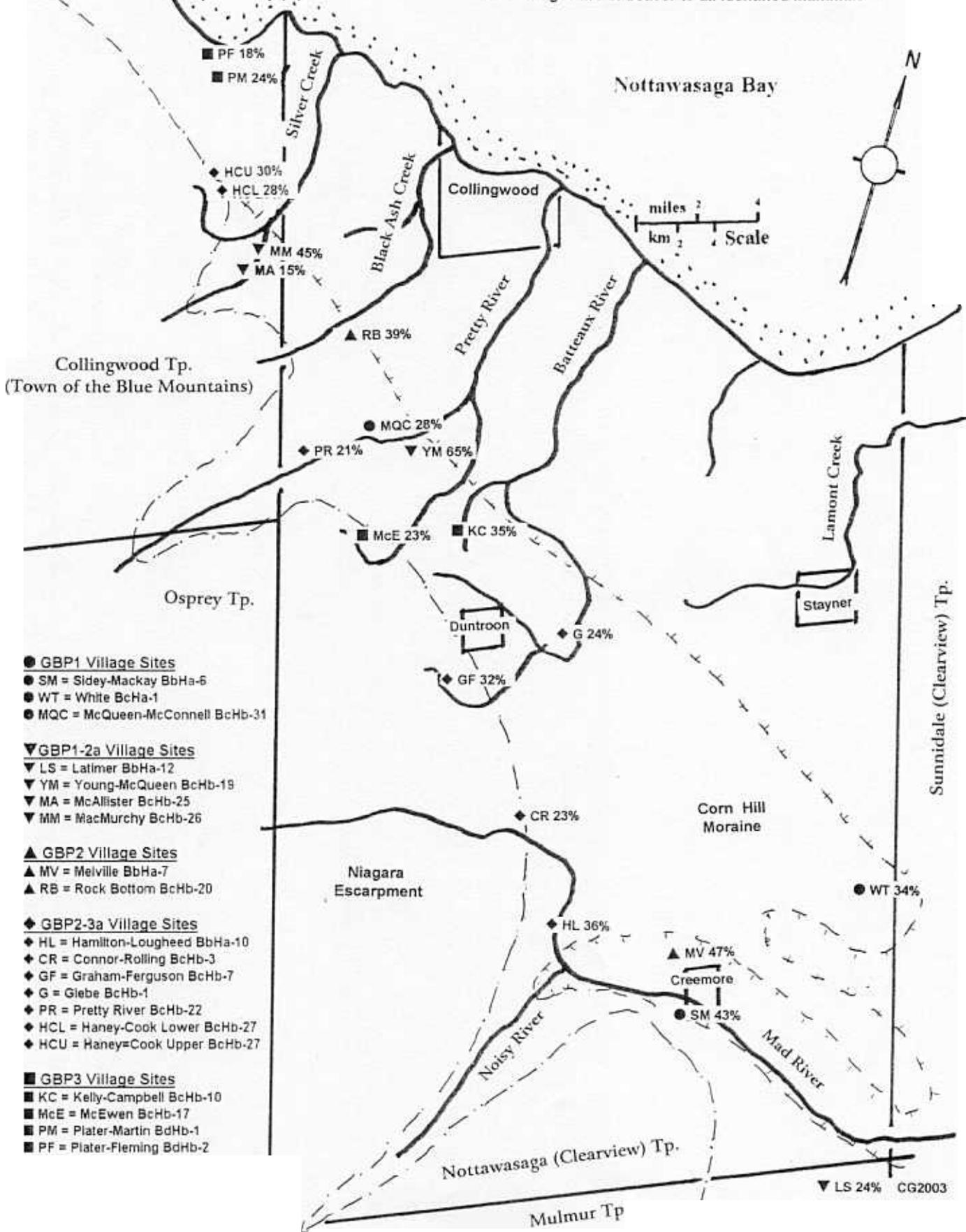
### Appendix A

#### Summaries of Petun Village Site Faunal Reports, from Cooper and Savage (1994) and De Angelis-Pater (1996)

This Appendix commences with details excerpted from Maria De Angelis-Pater's 1996 analysis of the Latimer BbHa-12 site faunal sample, presented in the format used by Cooper and Savage. The remainder is excerpted from "Zooarchaeological Analysis on Ontario Sites: An Annotated Bibliography" by Janet Cooper and Howard G. Savage (1994), with minor editorial changes. The order of sites is changed to their geographic sequence south to north. abbreviations, as used by Cooper and Savage, are: MNI = minimum number of individuals; NISP = number of individual specimens. sp. = identified to class but not to species. The term "conch" in the cited document would today be rendered "whelk". For "held by C. Garrad", read "held by Petun Research Institute, c/o C. Garrad". Site dates considered accurate in 1994 may have been subsequently revised. For "Ontario Ministry of Citizenship, Culture and Recreation", use the current name.

All cited analysts' reports are on file at the Howard G. Savage Faunal Archaeo-osteology Laboratory of the Department of Anthropology of the University of Toronto.

**FIGURE 1**  
**MAP: Beaver Remains on Twenty Petun Area Sites**  
 Percentages are of beaver to all identified mammals



The letters in brackets [ ] indicate the abbreviated name for the site used in Table

**LATIMER**, Dufferin County BbHa-12 [LS]

Culture: Protohistoric-Contact Petun

Date: ca. 1590-1616

Archaeologist: Charles Garrad

On File: UT-FOL #?

Analyst: Maria De Angelis-Pater 1996

Of 110 faunal specimens surface collected over several years 48 were identifiable, 5 certainly intrusive, and the remaining 57 unidentifiable. Of the 48 identified, 37 represented the Mammalian class, 1 the Osteichthyes class and 10 the Molluscan class. Mammal species represented were beaver, black bear, woodchuck, moose, white-tail deer, elk and dog. 20.4% of the Mammalian class exhibited evidence of having been burned, 19 bones showed cut marks, and 8 artifactual alteration, including 3 polished beaver incisors. Held by C. Garrad.

**SIDEY-MACKAY**, Simcoe County BbHa-6 [SM]

Culture: Protohistoric Petun

Date: 1580-1600 AD

Archaeologist: Charles Garrad

Published Ref: Wintemberg 1946

On File: UT-FOL #395

Analyst: Rosemary Prevec 1979

Of 4638 specimens recovered in 1977, 74% were mammal 15% bony fish, 6% mollusc, 2% avian; 2% were unidentifiable below class, 22% thermally altered. A wide variety of species appeared in all classes. Beaver dominated the mammals, indicating a good availability for food and furs; *Canis* sp elements, woodchuck, black bear and white-tailed deer also had significant NISPs. The diet included migratory/resident birds, fish, turtles and clams. Evidence supports permanent village designation. Artifacts (72) include bone/shell beads, awls, modified rodent incisors. Held by C. Garrad.

**MELVILLE**, Simcoe County BbHa-7 [MV]

Culture: Historic Petun

Dates: 1600-1630 AD

Archaeologist: Charles Garrad

On File: UT-FOL #269

Analysts: Alyce Sheahan 1980, Peter Hamalainen 1981

Analyses of faunal remains (n=3488) from surface collections and excavation of a small portion of the site in 1978 revealed typically high mammal and low avian components, with bony fish specimens about 15% of the sample; vertebrae predominated in the latter, but six families were identified from other elements. Black bear, beaver, white-tailed deer and elk appear as the largest meat contributors, with dog a secondary resource. Artifacts (153) include rodent incisor tools, perforated deer phalanges, beads/bead debitage (65 of conch shell), a human skull gorget and conch figurine; held by C. Garrad.

**WHITE**, Simcoe County BcHa-1 [WT]

Culture: Protohistoric/Terminal Lalonde

Date: 1540-1550 AD

Archaeologist: Jim Shropshire

On File: UT-FOL #460

Analyst: Peter Hamalainen 1974

From the 1974 excavation at this single-component, undisturbed site, 259 specimens were recovered. Mammals accounted for 60%, birds and bony fish each 11%, molluscs 17%; 12% (all mammal) were

thermally altered. White-tailed deer, black bear, beaver and various small or medium-sized furbearers are suggested as the foci of hunting and trapping activity, with fishing/fowling secondary and clam collection supplementary. Dog appears but did not play an important food role. The evidence supports year-round occupation. Artifacts include awls, points, tubes, disc beads, a conch shell bead; held by Ontario Ministry of Citizenship, Culture and Recreation.

**HAMILTON-LOUGHEED**, Simcoe County BbHa-10 [HL]

Culture: Historic Petun

Date: 1630-1642 AD

Archaeologist: Charles Garrad

On File: UT-FOL #170

Analyst: Peter Hamalainen 1981

Surface collections made at five midden loci over many years yielded 1539 specimens; 80% were mammal, 15% molluscs, 3% bony fish and 1.5% avian. Black bear (MNI=7) appears as the largest meat contributor, followed by elk, white-tailed deer and beaver; dog (MNI=5) also appears important. Vertebrae represented 85% of the fish sample; in the remaining 15%, three families were identified. Artifacts (159) include modified rodent incisors, a bear jaw "tool", beads, a harpoon and 137 conch shell beads/debitage; held by C. Garrad.

**CONNOR-ROLLING**, Simcoe County BcHb-3 [CR]

Culture: Historic Petun

Date: 1630-1642 AD

Archaeologist: Charles Garrad

On File: UT-FOL #87

Analysts: Peter Hamalainen 1981, Genevieve Le Moine 1982

Analyses of 2313 specimens recovered from the 1980 excavations and 218 from earlier surface and site-owner collections suggest a broad-based subsistence strategy and support year-round occupation. White-tailed deer, beaver and black bear appear as the largest meat contributors; Le Moine's sample also indicates dog as an important secondary resource and suggests deer and bear remains may represent skins. Hamalainen reports presence of 25 fish species. Artifacts (76) include modified rodent incisors, beads, awls, marine conch shell pendant; held by C. Garrad.

**GRAHAM-FERGUSON**, Simcoe County BcHb-7 [GF]

Culture: Historic Petun

Date: 1616-1642 AD

Archaeologist: Charles Garrad

On File: UT-FOL #159

Analyst: Janet Cooper 1978, 1979

Of the 2667 specimens from the 1972/75/76 excavations, 56% were mammal, 35% bony fish, 4% avian; 6% were thermally altered. Woodchuck and beaver appear as significant food resources with dog, black bear, cervids and fish also important; birds were probably procured opportunistically. Evidence for spring/summer/early autumn occupation is well supported; that for winter slight. Artifacts (81) include awls, projectile points, disks, a comb and marine conch shell (bead and disk); held by C. Garrad.

**GLEBE**, Simcoe County BcHb-1 [G]

Culture: Historic Petun

Date: 1616-1639 AD

Archaeologist: Charles Garrad

On File: UT-FOL #156

Analyst: Peter Hamalainen 1981

1185 specimens recovered from the 1968 excavations and surface collections made over the years are

analysed; overall, 67% were mammal (18 species), 25% bony fish, 5% freshwater pelecypods and 2% avian; 16% were thermally altered. The sample suggests black bear as the largest meat contributor, followed by beaver, white-tailed deer and woodchuck. Only 4% of the fish component, mostly vertebrae, could be identified below class. Artifacts (26, all mammalian) include modified rodent incisors, beads/ bead debitage; held by C. Garrad. Marine shell artifacts, not analysed here, are held by Royal Ontario Museum and Petun Research Institute.

**KELLY-CAMPBELL**, Simcoe County BcHb-10 [KC]

Culture: Historic Petun

Date: 1629-1649 AD

Archaeologist: Charles Garrad

On File: UT-FOL #218

Analysts: Annie Katzenberg 1979, Chris Junker-Andersen 1980

Remains (2705) from eleven 5-foot squares excavated on an eroding slope in 1974/75 consisted of 56-57% mammal and 25-30% bony fish; reptiles (turtle), birds and molluscs each made up 5% or less of both samples; <50% were identifiable below class, very few were thermally altered. Although fish appear as a major resource, black bear may have made the greatest meat contribution; *Canis* sp and white-tailed deer were well represented and beaver clearly still abundant in the area. The evidence supports year-round occupation. Artifacts include bone/shell beads, awls, tubes, a needle, worked conch shell; held by C. Garrad.

**McEWEN**, Simcoe County BcHb-17 [McE]

Culture: Protohistoric Petun; Historic Petun

Date: 1580-1600 AD; 1640-1649 AD

Archaeologist: Charles Garrad

On File: UT-FOL #259

Analysts: Genevieve Le Moine 1982

Excavation of 19m<sup>2</sup> on this site in 1979 yielded 471 specimens, most of which were small/fragmentary due to 100+ years of farming. The mammals (80%) were dominated by beaver and woodchuck, but overall a broad-based subsistence strategy pointing to spring through autumn occupation(s) is indicated. Domestic food species from the Historic European occupation (1857 AD on) appeared. An earlier surface collection of 110 specimens gave similar findings (Hamalainen). Artifacts (19) include beaver incisor tools, beads/bead blanks, awls and needles; held by C. Garrad.

**YOUNG-McQUEEN**, Simcoe County BcHb-19 [YM]

Culture: Protohistoric Petun

Date: 1600-1616 AD

Archaeologist: Charles Garrad

On File: UT-FOL #477

Analysts: Shelley Saunders 1976, Jennifer Shalinsky 1979

Of 883 specimens examined by Shalinsky from 1974/75 midden excavation (250ft<sup>2</sup>), 69% were mammal, 27% bony fish, 3% avian; 15% were thermally altered, 52% taken below class. Specialization in beaver trapping is suggested from its high representation, but white-tailed deer, black bear, woodchuck and *Canis* sp also had significant NISPs. Passenger pigeon dominated identified birds, bass species the fish. Evidence is strongest for spring/summer occupation(s). Saunders identified 159 specimens; 50% were beaver and findings similar to those of Shalinsky. Artifacts (21) include awls, bone/shell beads, a fish gorge and barbed point; held by C. Garrad.

**McQUEEN-McCONNELL**, Simcoe County BcHb-31 [MQC]

Culture: Protohistoric Petun

Date: 1595-1600 AD

Archaeologist: Charles Garrad  
 On File: UT-FOL #266  
 Analyst: Peter Hamalainen 1981

Of 1270 specimens recovered in 1978 from five 5-ft squares and a surface collection on the McConnell segment, 65% were mammal, 27% bony fish, 4% avian, 3% molluscs; 14% showed thermal alteration, virtually all mammal. Elk, white-tailed deer and black bear appear as largest meat providers, followed by beaver and woodchuck. Unidentified fish vertebrae numbered 255; five families appeared in the remaining 85 specimens. Artifacts (39) include rodent incisor tools, piercing tools, an antler flaker and three conch shell beads; held by C. Garrad.

**PRETTY RIVER**, Simcoe County BcHb-22 [PR]

Culture: Historic Petun  
 Dates: 1630 AD  
 Archaeologist: Charles Garrad  
 On File: UT-FOL #340  
 Analysts: Deborah Berg 1988

Of 493 specimens surface collected in 1987, 77% were mammal, 14% molluscs, 5% bony fish, 4% avian; 46% was identifiable below class. Black bear predominated (MNI=3, most elements foot or skull bones), followed by beaver, woodchuck and dog. Resident and migratory species appeared in the small avian component; shallow- and deep-water fish were identified. Among 73 shell pieces were 41 from marine conch, all either fashioned into beads or representing artifact debitage; artifacts held by C. Garrad. Berg discusses the worked shell material in detail.

**ROCK BOTTOM**, Simcoe County BcHb-20 [RB]

Culture: Historic Petun  
 Date: 1616-1630 AD  
 Archaeologist: Charles Garrad  
 On File: UT-FOL #364  
 Analyst: Peter Hamalainen 1981

Of 209 specimens surface-recovered from four midden loci over several years, 76% were mammal, 11% bony fish, 7% freshwater pelecypods and 3% avian. Analysis indicates black bear and elk as the largest meat contributors, followed by white-tailed deer and beaver. Eighteen of 23 fish bones were unidentified vertebrae; lake sturgeon and walleye/sauger appeared in the remainder. Artifacts (4) include a modified beaver incisor, possible shell gaming disc, two pieces of conch shell debitage; held by C. Garrad.

**McALLISTER**, Grey County BcHb-25 [MA]

Culture: Protohistoric/Historic Petun  
 Date: 1595-1616 AD  
 Archaeologist: Charles Garrad  
 On File: UT-FOL #256  
 Analysts: Peter Hamalainen 1981, Joo-Ran Im 1983

Of 2516 specimens recovered in 1971/78/82 from excavations and a surface collection, 70-79% were mammal, 13-19% bony fish, 2-5% avian. Black bear and elk appear as largest meat contributors, with woodchuck and beaver NISPs high and utilization of dog and small furbearers indicated; no white-tailed deer was identified. Im suggests the "schlepp" effect for black bear. Unidentified vertebrae represented >80% of the fish samples. Evidence for spring/summer/autumn occupation is abundant, but slim for winter. Artifacts (68) include marine (conch) and freshwater shell beads/bead debitage, awls and an antler gaming disk; held by C. Garrad.

2549 specimens from a midden part-excavated in 1962 and 1963 were 47% mammal, 37% bony fish and 2% avian; 12% of the molluscan component was marine conch; <6% of the sample was thermally altered. Black bear, beaver, woodchuck and dog appear as the largest meat contributors among a wide variety of mammals; at least 9 bird species are present. here is possible evidence of bear ceremonialism. Of 277 fish elements identifiable below class (10 species), >50% were lake sturgeon. artifacts (79) include punches, beads, bear jaw "tools", a comb, pendants and gorgets; held by C. Garrad.

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(The following Abstract of the above document by Peter Hamalainen is on file at the Howard G. Savage Faunal Archaeo-Osteology Laboratory, Department of Anthropology, University of Toronto (taken from: Cooper & Savage 1994):

*Hamalainen, Peter*

**1981 PATTERNS OF FAUNAL EXPLOITATION BY THE PETUN INDIANS**

*MA Thesis, York University, Toronto (Geography) 1981*

*On File: University of Toronto Faunal Archaeo-Osteology Laboratory*

*Roles of fauna in ritual behaviour and as sources of food, trade items and raw materials (for tools, weapons and medicine) are examined; a remarkable similarity of sample composition is seen, suggesting little change in environmental exploitation, including no appreciable depletion of the beaver population, throughout the entire period of Petun occupation of the Collingwood area (c. 1580-1650 AD); the possible role of a larger catchment area is speculated on).*

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