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American eel as it appears in archaeological and historic record

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PRESIDENT'S MESSAGE

When the presidency of the OAS long enough to have composed a full year's quota of *Arch Notes* messages, but here I am writing the last one for 2010. The year has sped by, and in many ways I still feel as though I am just learning the ropes. Of course, some dimension of that sense of always a new learning curve to tackle, will no doubt be a constant, given the diversity of activities and member interests that make up the OAS day to day.

And I will have a chance to test that theory next year, as the OAS Board of Directors for 2011 was set at our 2010 Annual Business Meeting. The OAS Board for 2011 will consist of many familiar faces, although Jean-Luc's term as past president is now up, and Jen Birch (now Dr. Jen Birch!) stepped down to pursue career options further afield. I'd like to extend a very large thank you to both Jean-Luc and Jen for all their efforts and good companionship on the Board. Their service to the OAS was outstanding, and will be very hard to duplicate in the future, as the Board tackles new challenges without aid of their valuable insight.

Fortunately, Jen's departure was ameliorated somewhat at the ABM when Chris Dalton, from Waterloo, graciously volunteered to serve on the Board next year. Chris had served on the London Chapter executive previously. Welcome aboard, Chris! And while our one remaining 'student' on the Board (Jim Keron is in the third year of his PhD!) is happy to placehold student member services in the interim, we are eager for another individual who might like to pick up the torch from Jen Birch in the New Year. So if you are a student, or know of one who'd like to help the OAS with student member services, please contact myself or someone else on the Board, and we'd be happy to appoint you into that position for 2011.

While 2010 was a year of getting caught up for the OAS, tackling some of bigger priorities of the strategic plan and getting issues of *Ontario Archaeology* caught up (which are on the path and winding their way to the press as you read this), 2011 will be about change. Certainly the Board will be busy developing a transition plan for the changes to governance that will take effect in 2012, and will be completing and implementing recommendations from our review of *Ontario Archaeology* and the society's awards programs. But, in addition, early in the year, we also hope to tackle streamlining of our membership database, make advances on the OAS Task Force for improving Aboriginal community involvement in Ontario

to update OAS practices and procedures. So there will be plenty to talk about in upcoming issues of *Arch Notes*.

But no doubt the biggest change to Ontario archaeology in 2011 will be the long awaited implementation of the Ministry of Tourism and Culture's Standards and Guidelines for Consultant Archaeologists. This 100 page set of standards covering every aspect of archaeological site and collection management and reporting in commercial contexts will certainly be the catalyst for many changes in archaeological practice over the next few years. And whether it brings a brave new world for archaeology, or the ruin of practice, as various people have predicted (and in truth, it won't be the document itself but what we collectively do with it that will determine change), it certainly will lead to enormous change in all aspects of archaeological practice for the entire archaeological community, whether directly or indirectly, and whether immediately or in the years ahead. So no doubt the challenges and opportunities these 'S&Gs' - as well as the accompanying Technical Guideline on engagement with Aboriginal communities - bring to Ontario archaeology will be preoccupying our minds and the pages of this newsletter a great deal over the next year.

Indeed, the only certainty is that the first year or two of using the S&Gs and engagement guidelines will be a bumpy ride, as people figure out how to translate direction into practice. We would like to document that ride, by documenting instances where problems arose from differing expectations or sets of assumptions, so that the community as a whole can learn from those early experiences. We also would like to document successes, where new procedures and standards led to a more positive outcome or innovative solution to managing the record. We'd also like to document the experiences of non-consultant archaeologists who encounter the changes to archaeology as a result of these new documents, or the experiences of Aboriginal communities, developers, individuals and archaeologists when working through engagement, again so we learn quickly from real time, on the ground, instances.

In fact, we would ask OAS members to share these experiences by emailing or writing, posting on Facebook or just grabbing myself or other Board members in person to convey your experiences. We can then distill those into a regular feature of *Arch Notes* – a sort of 'S&G Beat', if you will (not, by the way, in order to name names or point fingers, but rather as more generalised experiences that highlight flaws or effective strategies for working within the S&Gs and Engagement Bulletin).

We have a unique opportunity here to document and discuss a significant change to practice as it is happening, and quick dissemination of what has worked and what has not will help ensure the bumps of transition are not so hard, and don't last so long. We'll put out a formal call for people to contribute in the next issue of *Arch Notes*, but for the moment consider this your invitation to be part of the eyes and ears of the OAS on the front line of this important change to Ontario archaeological practice.

In the meanwhile, and on behalf of the OAS Board of Directors and Executive Director I would like to wish all of you well this holiday season, and all the best for 2011. See you in the New Year!

> Neal Ferris President

REPORT FROM THE EXECUTIVE DIRECTOR

The 2010 annual OAS Symposium held on Sept. 24 – 26th at Killarney Bay Inn, drew a large attendance from the OAS Membership, members of several First Nation Communities and students from Ontario Universities. We thank the participants, the organizing committee, the staff at Killarney Bay Inn and the many volunteers for making the 2010 Symposium such a success. Thank you to the staff of the Printing House for their assistance in printing this year's Annual Report and to Carole Stimmell, Director of Communications, for the design and layout. Thank you to the staff at Frames and Pictures for the beautiful framing of the OAS Awards and to Rudy Fecteau for his wonderful photography at the Symposium.

The Annual Business Meeting which was held on Saturday Sept. 25th saw the proposed increase to membership fees approved by the membership. The new fees for 2011 are viewable on the OAS website. Renewal forms for 2011 have been mailed to all members, payment options include; Pay Pal via OAS Website, Visa or MasterCard or cheques mailed to the office.

We are pleased to announce the OAS has received the 2010/2011 Provincial Heritage Operational Grant. Thank you to the Ministry of the Tourism and Culture.

In the New Year we look forward to publishing new articles and announcements from members in *Arch Notes*. *Arch Notes* is published bimonthly and meeting the submission deadline is key to maintaining the publication schedule. Posting your events early will allow for members to be well informed.

The OAS office will be closed after Dec. 24th and will reopen on Jan. 2nd, 2011. Hours of operation in 2011 will remain the same 9:00 – 5:00 p.m., Tuesday –Thursday. The first OAS Board meeting in the New Year will be held at the office on Saturday Jan. 15th, 2011.

We wish you and your family a very Happy Holiday Season and Best Wishes for 2011.

Lorie Harris Executive Director

ENDOWMENT OF THE GORDON AND MARGARET WATSON BURSARY

The Gordon and Margaret Watson Bursary was set up by the Ottawa Chapter OAS in partnership with Trent University to honour the couple's memory as contributors to Ontario archaeology. The Ottawa Chapter has been informed that, due to a recent substantial contribution, the bursary now qualifies for matching funds from the Ontario Trust for Student Support Fund. Thus a permanently endowed bursary now exists, offering each year the sum of \$500 to a needy graduate student in Canadian archaeology enrolled at Trent, where Gordon received his M.A.

The Bursary will be listed in the Trent course calendar. The annual distribution of funds will be the responsibility of the Trent University Office of Financial Aid. Annual endowment reports on the financial status of the fund and information on to whom the bursary has been awarded will be sent to the Ottawa and Peterborough Chapters of OAS and the Anthropology/Archaeology Department at Trent.

Thank you to all who contributed to make this dream come true. Friends, family and the profession can confidently assume that through this worthwhile endeavour, Gordon and Margaret's memories will live on in the archaeologists of tomorrow.

Glenna Roberts, Ottawa Chapter OAS, and Morgan Tamplin, Trent University.

ARCHAEOLOGY COMES TO THE RESCUE OF SPECIES AT RISK

by William A. Allen Heritage One, heritage1@magma.ca

INTRODUCTION

new market for archaeological data has emerged with the advent of the preparation of recovery strategies for endangered species. In Ontario the engine for this development is the Endangered Species Act, 2007 (ESA 2007). Under ESA provisions, species which are listed as endangered must have a recovery strategy. Each recovery strategy is developed according to a template with common headings. An important aspect of each strategy is the documentation and mapping of the distribution of the species. But there is a challenge. For species that are endangered, the area of the historic range often has contracted in modern times. Initial data about the mapping of that geographical range tends to come from databases of the Ontario Ministry of Natural Resources and from professional journals and texts about the biological science of the species. Such records do not reach back in time as far as archaeological records do. One task of the recovery teams assembled to write the recovery strategies is to expand the sources of data about species range to include Aboriginal Traditional Knowledge (ATK), local community knowledge and literature sources beyond the biological sciences. Since the Ontario government has a commitment to making science-based decisions, the science of archaeology has an important role to play in supplementing the biological science of the species and the wisdom offered through ATK, local history and community knowledge.

THE ENDANGERED AMERICAN EEL

One endangered species requiring an Ontario recovery plan is American Eel (*Anguilla rostrata*), not to be confused with ling or lamprey. On Nov. 12, 2010 the Draft Recovery Strategy for American Eel was posted on the Environmental Registry within Posting 011-1606, Request for additional scientific information to be considered in the development of recovery strategies for 12 species under the Endangered Species Act, 2007. (Environmental Registry, 2010). The American Eel Draft Recovery Strategy is online at the Ministry of Natural Resources website (MacGregor et al. 2010). American Eel used to be very abundant throughout a wide range in eastern North America including the Ontario waters of Lake Ontario, the St. Lawrence River and the Ottawa River watersheds. Eels used to account for more than 50 per cent of the total freshwater fish biomass (Smith and Saunders 1955; Ogden 1970; Lary et al. 1998). This amazing abundance made the American eel very significant to Aboriginal people (MacGregor et al. 2008:358; MacGregor et al. 2009:716) and increases the likelihood that faunal analyses at archaeological sites within eel range will reveal evidence of the species. Potential for finding eel remains also exists at waterfall barriers where the Anishinaabemowin word for eel has survived as a geographic name eg. Pimisi on the Mattawa River (McGregor 1994) or Pim-Missi on the upper Ottawa River near Notre Dame du Nord (MacDonald 1985).

Because American Eel is migratory and panmictic (all individuals are potential breeding partners), archaeological investigations at pre-contact sites by East Coast American colleagues are relevant. American Eel remains were documented in Virginia at several archaeological sites predating the arrival of Europeans (Whyte 1988; Whyte and Thompson 1989; Egloff et al. 1994; Whyte 2001; Whyte 2002; Clark et al. 2005). Some artifacts at a site in Delaware tested positively for American Eel protein residues (Puseman and Cummings 2004). In New York State at the Bates site in Chenango County, a site carbon-dated to 1190 A.D., yielded eel remains (Ritchie and Funk 1973). An eel weir and adjacent archaeological site were documented at the Wyns Farm site (35CO30) on the Otselic River, New York by Ellie McDowell-Loudan, archaeologist at State University New York, Cortland (W. Allen personal site observation; Allen 2007).

American Eel abundance in current day Ontario continued into the 17th and 18th centuries when specialized eels darts and spears appeared in the inventories of forts such as Royal Fort Frontenac in 1684 (Preston 1958:152) and trading houses such as the Hudson Bay Post at Lake Timiskaming. By the 19th century American Eel were valued by settlers and were documented in Ontario in both French (anguilles) and English (Alexis 1897:287; McGregor et al. 2009:718). In 1838 an advertisement for the sale of Selby Grist Mill and Sawmill on the Otonabee River near Peterborough used the presence of eels as a selling point for the mill, stating that upwards of £50 worth of Eels were taken last Season in the Boxes fixed in the Saw-Mill. (Cobourg Star 1838).

There are multiple accounts of eels clogging mills so seriously that the mill had to be closed so that operators could clear the mill wheel of dead eels (Webster Times 1877; New York Times 1891, 1900; Weinraud 2006:144). As recently as the 1930s eels entangled in the turbine in the mill at Wakefield, Quebec repeatedly had to be cleared out (Burnett 2007). The Ontario mining industry also has contributed to documentation of eel abundance. In 1914 when 400 million gallons of water and mud were drained from Kerr Lake at Cobalt to facilitate mining operations, Robert Livermore, the engineer in charge of draining the lake, documented a large number of fish, including eels up to 30 inches long smothered by the mud, coming to the surface in great numbers (Livermore 1914: 1915:341).

American Eel Range

To understand potential areas where eel remains may be found in archaeological context archaeologists need to understand eel behaviour and the historic range of the species. The Ontario population has collapsed so the species now is present in only a more limited range (MacGregor et al. 2008; 2009; 2010; MacGregor et al. in prep.). The collapse is largely due to the negative cumulative effects of eels passing through the turbines of a sequence of hydro electric facilities which have no fish passage provisions (Allen 2008; MacGregor et al. in review). Some mortality occurs at each dam. Massive mortality occurs as eels run the gauntlet at successive dams.

American Eels are semelparous (spawn only once) and spawn only in the Sargasso Sea, so wiggle out of water on their upstream migration to get around rapids and waterfalls. Modern dams, especially large dams, inhibit the upstream migration of young eels. The out-of-the-water eel behaviour caused Aboriginal people to refer to the eels as snake-fish (Moore 1982:7) or Kenabeek gwummaig (James 1956:311). A cognate for snake-fish in the Cree language is kinebikoinkosew (Chamberlain 1901:672). However, the barrier of Niagara Falls prevents passage by American Eel so the species is not present in Lake Erie and the upper Great Lakes, a fact recognized long ago (Talbot 1824:268). Early survey records provide valuable documentation of American Eel presence in local areas, especially at the extremities of the range. Frank Purvis, a Provincial Land Surveyor, documented eels in the Blanche River north of Lake Timiskaming (Purvis 1887). Alfred Barlow, a geologist with the Geological Survey

BORDEN BLOCK	Eel MNI	NO.OF SITES	Site Name	RESEARCHER
AiGx (-91)	1	1	H&R	Finlayson
AiHa (-16, -20)*	10 + 2 = 12	2	Ivan-Elliot, Winking Bull	Finlayson, Fitzgerald
AkGv (-8)	1	1	Parsons	Thomas
AkGu	1	1		ASI
AlGr (-1)	2	1	MacLeod	Reed
AlGt	1	1		ASI
BaGm (-9)	1	1	Grafton	Dibb
BbGl (-13)	13	1	Richardson	Pearce
BbGl (-13)	1	1	Gibson	ASI
BcGr (-1)	16	1	Kirche	Ramsden
BbGw (-5)	1	1	Dykstra	ASI
BcGw (-55)	1	1	Wellington	ASI
BeFu (-2)	38	1	Driver's	Ballantine
BfFt (-1, -2)	56 + 5 = 61	1	Beckstead,	Junker-Andersen
BkGg (-11, -12)	520 + 68 = 588	2	Morrison Is. 6,	Courtemarche

of Canada, documented eels in Lakes Temagami and Timiskaming prior to 1900 (Barlow 1899; 1907). Since eels cannot spawn in fresh water, when adults are approximately 20 years old they must migrate from Ontario fresh water back to the Atlantic Ocean to spawn.

The online draft American Eel Recovery Strategy includes a map of American Eel range in Ontario (coloured purple), a map which is overlain with a sample of 14 Borden blocks with 16

Table 1: Data for 18 sites in 15 Borden blocks used to form the map in Figure 1. Some sites have very tiny counts of eel bones (as low as one bone per site). Total sample reported is too sparse to make authoritative generalizations, but from site context it is apparent that there are both production sites and consumption sites. * Yellow shading denotes Borden blocks with two eel sites



Figure 1: American Eel Traditional Range in Ontario

Traditional range of American eel in Ontario shows in purple, including all of Lake Ontario and the Ontario portion of the Lake Ontario Watershed and the Ontario portion of the Lake Timiskaming Watershed. The Ottawa River Watershed is outlined in black. Although two thirds of that watershed is in Québec, eels migrate downstream via the stem of the Ottawa River along the Québec/Ontario border. Published reports indicate that historic American Eel range includes the Lake Nipissing Watershed (including Lake Temagami) which drains to Georgian Bay so that portion of the apparent additional range is shown in lighter purple. Eels, which are capable of wiggling out of water, could access the Lake Nipissing Watershed only by crossing certain marshy locations at the height of land. Seven potential crossover locations are shown by red crosses. Borden Blocks with documented eel-yielding archaeological sites are shown as yellow circles. Eel abundance in those Borden blocks, calculated as Minimum Number of Individuals - MNI, is shown in olive-coloured circles within the yellow circles. MNI ranges from 688 MNI in the BkGg Borden block to 1 MNI in several Borden blocks. Eel abundance is so extensive in some Borden blocks that the olive-coloured circles obscure the underlying yellow circles.

archaeological sites which have yielded eel remains (MacGregor et al. 2010:8). Minimum Number of Individuals (MNI) in each Borden block is shown graphically but is available for only some sites. An updated copy of that map, showing 15 Borden blocks and 18 archaeological sites, is provided here in Figure 1 but also needs to be read as a report on very preliminary research that still is in process. Caution is required not to mix data from simple bone counts with data from known MNI. Many bones may be found at a site but some bones are from the same eel.

Archaeological documentation of American Eel in Ontario

is in its infancy so the sample of data available to date is very small compared to the massive eel abundance known from Aboriginal Traditional Knowledge and 17th century reports. This is particularly true of information about eels at the northern extremity of its range in the Lake Timiskaming area of the upper Ottawa River Watershed. Absence of proof of eel remains at sites is not proof of absence of the species.

In the Figure 1 map where there are two eel sites in the same Borden block (AiHa, BfFt and BkGg) only one yellow circle is shown since mapping at this scale otherwise provides confusing overlapping symbols. Olive colouring is superimposed over the yellow circles and denotes total eel MNI for that Borden block, the larger the olive circle, the larger the eel MNI in that Borden block. Olive circles in Borden blocks with more than 50 MNI completely obscure the underlying yellow circle. Sites with high MNI have an apparent association with harvest and processing. Eels are known to exist at other sites but the author has not yet determined the MNI for those sites so they have not been recorded on the current version of the map – eg. Alexander Village, Toronto; Grandview Village, Oshawa; Robb site,

Markham; Jaret-Lahmer, Vaughan; Holly site, Barrie; Holmedale site, Brantford (R. Williamson to Allen, pers. comm.). Eel remains have been reported at sites in the Kingston area but have not been referenced in the current map. Provincial collation of all data about eel remains known to individual archaeologists would be helpful. The Figure 1 map can serve as the foundation on which eel data from other known sites can be added as the Ontario archaeological community adds data to the preliminary data set. Table 1 provides an overview of the data used to create the



Figure 2: American Eel Potential Crossover Locations, Lake Nipissing Area

A section of topographic map shows the North Bay region. North Bay is at the upper left and a portion of Lake Nipissing on the extreme left. The black line shows the boundary between the Ottawa River Watershed and Lake Nipissing Watershed. Along that height of land boundary are three locations where marshy land provides the opportunity for eels to cross from the Ottawa Watershed to the Lake Nipissing Watershed. From top to bottom those three potential American eel crossovers are at the head of LaVase Portage at Trout Lake, the west end of Lake Nosbonsing and the east side of Wasi Lake.



Figure 3: Eel Fishing Spear

The sketch by Rowland Orr from the 1917 AARO shows a specialized eel spear, sometimes called a harpoon or leister. The tines crafted from culturally modified bones in pre-contact times, sometimes are found at archaeological sites. Orr described the spear. To a long pole, two or three inches thick, was attached a piece of pointed bone or flint as shown. Two little curved sticks are attached so that they almost meet at the end of the bone point. When the fisherman strikes an eel, he impales it upon the bone point; the two pieces of stick yielding by the force of the blow and allowing the eel to enter, then closing of themselves, because they open only through the force of the blow, and thus prevent the impaled eel from getting away.

archaeological site information within the Figure 1 map.

Some eel-yielding archaeological sites are slightly outside the presumed historic limit of American eel range eg. Holmedale site (Lake Erie Watershed), Dykstra, Wellington and Holly sites (Lake Simcoe Watershed). This phenomenon may be explained by knowing that in centuries past eel was a favourite travel food because of its high calorie content. Alternately, it also is possible that live eels may have been trapped and transferred to adjacent watersheds in pre contact times in the same way that Aboriginal people transplanted introduced plant species adjacent to their villages and camp sites. However, eels may have found marshy crossover points at the height of land between watersheds and may have accessed adjacent watersheds without human agency. Such potential eel crossover areas may explain the documented 1970 presence of an American Eel in the Lake Nipissing Watershed at Sturgeon Falls (Young 1970:52) and reports by local First Nations Elders that the Wasi River tributary was an eel access route to Lake Nipissing. The author has made a study of marshes along the height of land on the west side of primary watersheds in the Districts of Temiskaming, Nipissing, Parry Sound, Algonquin Park and the areas west of Balsam Lake in Victoria County. Maps and photographs of potential crossover points in these marshes are at press and due to be posted online by the Great Lakes Fisheries Commission by late 2010 (MacGregor et al. in prep). A map of potential crossover points in the Lake Nipissing Watershed is provided (Figure 2).

American Eel Archaeology Leadership in Ontario and Québec

Although the identification of fish species is not an Ontario archaeological licence requirement, several archaeologists have done exemplary work to bring American eel to the attention of colleagues. A seminal work is The Eel Fisheries of the St. Lawrence Iroquoians by Chris Junker-Andersen



the apparent flimsy dorsal fin.

(Junker-Andersen 1988). The publication provides background about the nearby eel-yielding Beckstead site (BfFt-1 with 5 MNI) and Driver's site (BeFu-2 with 38 MNI per (Ballantine licence report and Ballantine to Allen pers. comm.). However, Junker-Andersen concentrates on the Steward Site (BfFt-2), a small seasonal fish harvesting site with occupational activity at about AD 1150, 1385 and 1550. Steward features an MNI of 56 American Eel, the third highest concentration of the species documented to date at Ontario/Quebec sites, surpassed only by the MNI of 520 and 68 at two Ottawa River sites, Morrison Island 6 (BkGg-11) and Allumette Island (BkGg-12) respectively (Clermont, N. and C. Chapdelaine 1998; Clermont et al. 2003). Beckstead is an interesting site. Although it is positioned at Fritz Markle Creek, a small tributary creek of the South Nation River which flows to the Ottawa River, the site is in the same Borden block as Steward, a harvesting site. Although American eel is common in the South Nation River, overland transport of the five eels from the harvesting site at Steward cannot be ruled out. Junker-Andersen has continued his leadership with an eel presentation at the 2007 Symposium of the Ontario Archaeological Society and currently is undertaking a parallel study in helping to analyze archaeologically-derived, culturally-modified bones (Junker-Andersen to Allen, pers. comm.).

Determination of Minimum Number of Individuals (MNI) is an extremely time consuming process, as Michelle Courtemanche, ichtyoarchaeologist at Ostéothèque de Montréal, Dép. Anthropologie, Université de Montréal, has demonstrated by examining and classifying 108,500 fish bones from the Hector Trudel site on the St. Lawrence River near Montreal before concluding that the assemblage contained an MNI of 30 eels (Cossette 1995; Courtemanche 2003). At the nearby Pointe-du-Buisson Station 4, a site dating to 920-940 A.D., Courtemanche undertook another painstaking study on 43,479 fish bones and found an MNI of two American Eels from 12 eel bones (Courtemanche 2003). See also



Figure 5: "Monster" published in 1914 AARO

The sketch is by Washaghezik, also known as Jonas George, a man born in 1850 and resident of Rama First Nation in 1914. Washaghezik reported that the "monster" was about 12 feet long. He stated that one lives at Balsam Lake, another at Atherley and a third one lives up north in a lake the name of which is now forgotten. Note the eel-like flimsy fin in the sketch.

http://www.pointedubuisson.com/.)

For purposes of species at risk recovery, those sites which are close to the headwaters of tributaries are particularly

helpful. An example is Carol Nasmith Ramsden's 1989 documentation of 16 eel MNI at the Kirche Site at Balsam Lake in the Western Kawartha Lakes of the Upper Trent River Watershed (Ramsden 1989:141). Sometimes it is the research done in post graduate theses that provides American eel data. Examples are Robert Pearce's 1977 discovery of American Eel MNI of 13 at the Richarsdon site (BbGl-14) in the lower Trent Watershed (R. Pearce to Allen, pers. comm.) and Pat Reed's documentation of two MNI at the MacLeod site (AlGr-1) along Goodman Creek in

Oshawa (P. Reed to Allen pers. comm.). The thoroughness of Stephen Cox Thomas in comparing the fish components of two collections from the Parsons Site (AkGv-8) in York



Figure 6: Banded Slate Groundstone Celt at BkGg-29 Stone Fish Weir At low water in September the stones within the nearshore stone fish weir in Rapides des Allumettes are exposed to the open air. A banded slate groundstone celt lies in situ among the stones. Township, revealed three American Eel bones in one of the collections, presumably an MNI of one (Thomas 1998:132). Because eel remains tend to be such a small portion of total faunal specimens at a site the advent of computer searches of databases is helpful where the data is available online. An Ontario leader in this regard is Archaeological Services Inc. whose online postings allow access to the sparse but important data at sites such as the Simcoe County sites of Dykstra (BbGw-5) and Wellington (BcGw-55). (See http://www.archaeologicalservices.on.ca/Publications/Report s/Dykstra%20Site%20Report.pdf and http://www.archaeologicalservices.on.ca/Publications/Reports/Wellington%20Site_Barrie_Report.pdf

BEYOND THE FISH BONES

Several classes of archaeological information are helpful for recovery strategy decision-making about species at risk and for determination of species range. Various artifacts related to fishing technology, if found in archaeological context with remains of a species at risk, are worthy of comment as background about species range. An example is the eel spear or leister sketch reprinted here (Figure 3) (Orr 1917:30).

Junker-Andersen again provides valuable information about leisters, noting that numerous bone artifacts located at all levels of the Steward site midden may have served as leister tines in the pre-contact period (Junker-Andersen 1988:109). Serpentine forms on artifacts such as the one on the pipe stem in Boyle 1891:31 (Figure 4), especially if found in known context, can draw helpful comment by archaeologists. Consultations with First Nations elders who are familiar with eel history may provide unique interpretations about creatures which until now archaeologists have referred to as winged serpents. Serpentine effigy mounds in areas of high abundance of American Eel, such as Serpent Mounds at Rice Lake, Ontario, may lead modern archaeologists to a broader understanding of traditional Aboriginal reverence for the eel. Serpentine images depicted in some pictographs within American Eel range may lead to a similar wider understanding of traditional Aboriginal perspectives. Knowing the value of eels as travelling food that can last for several days, images of serpentine figures well beyond American eel historic range may well be examined in new light. The eel-like "monster" depicted in 1914 by 64-year-old Rama First Nation resident Washaghezik, also known as Jonas George, provides supporting evidence of Aboriginal perspective of a century ago (Figure 5, Laidlaw 1914:79). The accompanying text reports this monster at Balsam Lake, a lake known as American eel traditional habitat (Ramsden 1989). Eels in the far inland waters seem to get very big (MacGregor to Allen, pers. comm.) so the Washaghezik sketch with its wavy dorsal fin is a valuable reference.

In my own case I have been intrigued by the massive American Eel assemblage at the nearby Morrison Island 6

(BkGg-11) and Allumette Island (BkGg-12) sites along the Ottawa River on the major pre-contact canoe route to both the centre of the continent (Upper Great Lakes and upper Mississippi River) and to the Arctic Watershed (Clermont 1999). At 'Morrison Island 6' (BkGg-11) eel bones represent 53.7% of total faunal assemblage. The 2979 eel bones produced an MNI of 520 eels (Clermont, N. and C. Chapdelaine 1998). Nearby the multi-component Allumette Island site (BkGg-12) produced 362 eel bones and an MNI of 68 eels, in this case 9.8% of faunal assemblage (Clermont et al. 2003). Because of my earlier visits to fish weirs of different types in New York, Ireland, Vancouver Island and Mnjikaning I looked upstream in the rapids between Morrison Island and Allumette Island for a potential stone eel harvesting weir. With the help of Larry Graham, Co-Chair of the Ottawa River Heritage River Designation Committee, I was able to observe a magnificent multi-tiered fish weir with a series of diagonal lines of stones in the shallows adjacent to a small island in the middle of the rapids. During our visit we found an Archaic ground slate celt in situ (Figure 6). I informed Québec officials who tentatively assigned Borden number BkGg-29 until a person with a Québec licence can confirm the existence of the site and do some test pitting on the tiny island (C. Giroux to Allen, pers. comm.). There is much more to archaeological evidence of American Eel than just fish bones.

CONCLUSION:

Documentation of archaeological evidence of any species at risk is helpful in the design of recovery of that species. This paper has used American eel as an example. In the short term one way for archaeologists, OAS Chapters and OAS itself to support their profession is to send an e-mail to the Ontario government expressing opinion about the value of archaeological science in recovery planning for endangered species, specifically for the recovery planning for American Eel. Such communication along with any other personal opinions, using the Environmental Registry process, is a response to the Ontario Government invitation for the public to provide additional scientific information. Under the registry's procedures the deadline for that comment is Feb. 10, 2011. (The contact person is Bree Walpole, Biologist, Ministry of Natural Resources Policy Division, Species at Risk Branch, 300 Water Street, Floor 4, Robinson Place South Tower, Peterborough Ontario, K9J 8M5; Phone: (705) 755-5485; E-mail: Bree.Walpole@ontario.ca)

In the longer term, archaeologists who have data about American eel that is not included in this paper are invited to share that information with the author. The author also would appreciate hearing from archaeologists about errors or required adjustments in this preliminary report so that a subsequent update can be provided. As Ontario formally schedules the development of recovery strategies for more and more endangered species, archaeology truly can come to the rescue.

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PAST COMES BACK TO LIFE AT LAKESIDE PARK

By Jennifer Burden

rillia's original European tourist made his first appearance in 400 years at the foot of the Samuel de Champlain monument in Couchiching Beach Park on Saturday.

Etienne Brulé, the French adventurer and indentured servant of Champlain, first arrived on the shores of Lake Couchiching in the fall of 1610 with the Algonquin Chief Iroquet and his people from the Ottawa Valley.

The character of Brulé, played by actor Hugh Barnett, was interviewed by Kevin Hammond, the artistic director of the Humber River Shakespeare company, about his experience in our area four centuries ago in front of an audience of approximately 20 people. "It was far

more marvellous than I ever



very quickly seemed to be able to cut off that idea of himself being a European. It's that blending of the cultures," Barnett said. "I really appreciate that Etienne took the time to learn the language, learn the customs and become a part of their community."

The interview skit came after a presentation of five flags – Canadian, Province of Ontario, City of Orillia, Metis and Franco-Ontarian – secured at the base of the Champlain monument recognizing Orillia as the original meeting place of nations.

John Raynor, the president of the Huronia Chapter of Ontario's Archaeological Society, presided over the ceremony, which also included musical performances by his wife, Marg Raynor.

"History soon gets overwritten and forgotten just like the archaeological sites in the earth. Every time we tell (stories) if we don't touch base with the primary source the stories get

anticipated," Barnett, as Brulé, said. "Life was difficult, but at the same time peaceful."

It was the custom of the Iroquet's people to travel to Huronia and spend the winter with the Rock Nation of the Wendat, who were part of the Huron Confederac y that lived between lakes Couchching and Simcoe to the east and the Coldwater River to the west.

Brulé also spoke of his experiences wintering in Quebec, learning the languages and customs of the indigenous people, the relationship he had with the First Nations and his impressions of Champlain.

In order to get into character, Barnett said he scoured a lot of primary source materials written by Champlain and the Jesuits about Brulé. From there, he said he filled in the pieces of what kind of character he thought Brulé would have been.

"I look at Etienne as a symbol of the first Canadian. He

expanded," Raynor said.

He organized Brulé's return visit to Orillia as a precursor to a larger celebration slated for 2015, the 400th anniversary of Champlain's inaugural visit to Orillia in 1615.

Raynor hopes that Saturday's event encouraged Orillians to "look to the past, not just ignore it" and to become more involved in their heritage community.

With 30 native sites in Orillia and 600 more in between Orillia and Midland, including villages and ossuaries, Raynor said we need to do more to preserve our rich history.

"We are losing these sites through the development of subdivisions, condominiums and even single family homes," he said. "It doesn't mean we have to save every one, but if we had the chance to examine them at least we can learn from them."

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