

Fish and other faunal remains from a Late Iron Age site on the Letaba River, Kruger National Park

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Fish remains from Late Iron Age sites in the Transvaal are relatively scarce. It seems as if the people did not utilize the riverine resources extensively. Therefore the unique assemblage of large numbers of fish bones on a Late Iron Age site, provides some insight into the fish population of a section of the Letaba River a few hundred years ago. The presence of other faunal remains provides some information on prehistoric utilization of the environment in general. Hunting strategies and aspects of herding can also be deduced from the faunal remains.

Key words: prehistory, Iron Age, fish, fauna, archaeozoology, Kruger National Park, hunting, herding.

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Introduction

The site Le 2 is situated on the southern bank of the Letaba River at its confluence with a minor tributary, approximately 2 km west of the junction with the Shikome Stream (Fig. 1). A midden is visible on the site and two trenches, Le 2.1 and Le 2.2, joining each other in the shape of a T were measured over the midden and excavated. Excavated material consists of bone fragments, pottery sherds and other household refuse, suggesting that the site was a settlement rather than a camp site.

Meyer (1986) regards Le 2 as a Late Iron Age site. The pottery is characterised by spherical pots and semi-spherical bowls, decorated with band incisions. It is somewhat similar to that of Masorini near Phalaborwa and very similar to the early Venda pottery. However, the settlement pattern at Le 2 is different from that of Masorini or of the Venda, as no traces of stone walls were found (which are characteristic of these groups). The Phalaborwa sites also bear evidence for extensive metal work-

ing, of which very little was found at Le 2. The excavator believes that the people who inhabited Le 2 may have been Sotho groups who adopted Venda pottery. As their cultural affiliation has not yet been satisfactorily determined, Meyer (1986) suggests that the name Letaba industry be applied to the pottery traditions of Le 2 and associated sites.

The faunal sample and methods of analysis

Trench Le 2.1 is 7 m long and Le 2.2 is 3 m long. Both trenches are 50 cm wide and were excavated in arbitrary spits of 10 cm each to a depth of 30 cm (Meyer 1986). The deposit was not excavated to its full depth and more work is necessary on the site. The faunal samples from Le 2 were analyzed by trench and spit. As there was no evidence of stratification or change in the deposit, there were no valid reasons for keeping the samples separate. For the purpose of this paper the samples were therefore treated as one unit.

The fish remains were analyzed at the J.L.B. Smith Institute and the rest of the fauna at the Transvaal Museum. Methods used in the faunal analysis and basis of identification of specimens are discussed in Plug (1988), Voigt (1983) and Brain (1974). Recent research projects on the osteomorphology of various bovid species (Boessneck *et al.* 1964; Peters 1988;

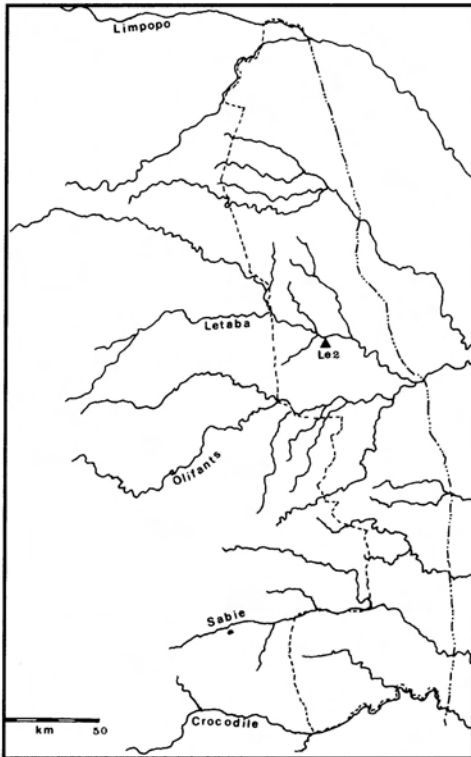


Fig. 1. The Kruger National Park and the position of Le 2.

Peters *et al.* *in prep.*; Von den Driesch *pers. comm.* 1986, 1990) allow us to identify species not only on teeth, but also on fragmented pieces of post-cranial remains.

Results

The total faunal sample consists of 2 307 fragments of which 21 % are fish remains. This is proportionally the largest number of fish remains as yet excavated from an archaeological site in the Kruger National Park. In total 854 fragments could be identified to species or animal group. Although the identified sample is relatively small, a wide variety of species is represented (Table 1). Fish and other animals are represented by a variety of skeletal elements (Tables 2 & 3 respectively).

Almost all mammal species represented were fully adult at the time of death. The exceptions are a juvenile each of zebra, steenbuck and hare. The sample is rather fragmented and the mammal bone flakes have a median length of 40 mm. Butchering damage in the form of chop, cut and chisel marks are visible on many of the larger bones, while traces of scorching and burning are also present.

Skeletal parts representation is very similar to that of other Iron Age settlements in the Kruger Park (Plug 1988). Attrition patterns of the skeletal elements conform with the densities of the bone, reflecting preservation rather than human selection.

Discussion

The species list suggests that the people who inhabited Le 2 employed a variety of strategies to obtain animal protein. These include fishing, herding, hunting, trapping or snaring, and collecting. The presence of armadillo indicates that the community may have had some status as this animal is usually associated with symbols of authority and/or divining (Plug 1987, 1988; Van Warmelo 1967).

The presence of domestic animals such as cattle and sheep or goat, suggests that the area was free of tsetse infestation at the time the site was inhabited. According to historical evidence, the lowveld was badly infested during the 19th century, and possibly also during the last half of the 18th century (Fuller 1923; Trichardt 1836-8). We do know that the area was relatively free of tsetse at the beginning of the 18th century (Punt 1975). One may therefore assume that Le 2 was inhabited before the 19th century.

The game species represent both large and small animals, indicating that the people of the community had advanced hunting skills. It is possible that hunting drives were held. This method of hunting was popular amongst

the Late Iron Age people in the eastern Transvaal (Trichardt 1836-38; Von Wielligh 1928; Stevenson-Hamilton 1934). The wild animal species identified from the samples still occur in the area today. One may therefore assume that there are no noticeable differences in climate and vegetation between present day conditions and those of two centuries ago.

The fish species represented, with the exception of tigerfish *Hydrocynus vittatus*, all occur at present in that stretch of the Letaba River where Le 2 is situated. There is no evidence to suggest that the fish represented in the Le 2 deposits were caught far away from the site. The samples unfortunately do not necessarily reflect relative abundances of fish as they

Table 1
The Le 2 fauna: species present, number of identified skeletal parts (NISP), and basis of identification. (D: deciduous teeth, U: unerupted teeth, P: permanent teeth, C: cranial, PC: post-cranial, SC: shell/carapace)

Species	NISP	D	U	P	C	PC	SC
<i>Genetta</i> sp.	1					1	
<i>Orycteropus afer</i>	2					2	
<i>Equus burchelli</i>	38	2	3	6	3	24	
<i>Phacochoerus aethiopicus</i>	2					2	
<i>Giraffa camelopardalis</i>	4				1	3	
<i>Bos primigenius</i> f. <i>taurus</i>	18				1	17	
<i>Ovis/Capra</i>	3					3	
<i>Aepyceros melampus</i>	31			3	7	21	
<i>Connochaetes taurinus</i>	20				1	19	
<i>Raphicerus campestris</i>	14	3		7	4		
<i>Syncerus caffer</i>	14			2		12	
<i>Kobus ellipsiprymnus</i>	3			1	1	1	
Bovidae small sp. indet.	6				2	4	
Bovidae medium sp. indet.	13				2	11	
Bovidae large sp. indet.	63				5	58	
<i>Pedetes capensis</i>	4			3	1		
Rat sized rodent	1					1	
<i>Lepus saxatilis</i>	17					17	
<i>Coturnix</i> sp.	1					1	
<i>Francolinus natalensis</i>	4				1	3	
<i>Francolinus swainsonii</i>	3					3	
<i>Francolinus</i> sp.	3					3	
<i>Varanus</i> sp.	2					2	
Tortoise	80					11	69
Amphibian	11					11	
<i>Clarias gariepinus</i>	35				11	24	
<i>Clarias</i> sp.	18				4	14	
<i>Synodontis zambezensis</i>	2					2	
<i>Tilapia rendalli</i>	5				3	2	
cf <i>Tilapia rendalli</i>	7				5	2	
<i>Hydrocynus vittatus</i>	3			2	1		
<i>Hydrocynus</i> sp.	1				1		
Cichlid	86				13	73	
cf Cichlid	48				4	44	
Cichlid/Cyprinid	4					4	
cf Cichlid/Cyprinid	44					44	
Fish	240				9	231	
<i>Corbicula africana</i>	1						1
<i>Melanoides tuberculata</i>	1						1
<i>Unio/Aspatharia</i>	1						1
Total	854	5	3	24	80	670	72

Table 2
Le 2 identified fish species and skeletal parts. (Cl: Clarias spp., C: cichlid, C/C: cichlid/cyprinid, Hy: Hydrocynus spp., Sy: Synodontis zambezensis, Tl: Tilapia spp., U: species uncertain)

Skeletal part	Cl	C	C/C	Hy	Sy	Tl	U	Total
Dermal skull plates	11	0	0	0	0	0	0	11
Teeth	0	0	0	3	0	0	0	3
Palatine	0	1	0	0	0	0	0	1
Supraoccipital	0	0	0	0	0	1	0	1
Basioccipital	4	0	0	0	0	0	0	4
Premaxilla	0	0	0	0	0	1	0	1
Maxilla	0	1	0	0	0	0	0	1
Hyomandibula	0	3	0	0	0	0	0	3
Posttemporal	0	1	0	0	0	0	0	1
Preopercle fragment	0	0	0	0	0	1	0	1
Opercle	0	5	0	0	0	5	1	11
Branchiostegal ray	0	0	0	0	0	0	11	11
Anguloarticular	3	0	0	0	0	2	0	5
Hypural	0	1	0	0	0	0	1	2
Cleithrum fragment	5	8	0	0	1	0	0	14
Urohyal	0	0	0	0	0	2	0	2
Ceratohyal	0	1	0	0	0	0	0	1
Quadrate	0	0	0	1	0	0	0	1
Pelvic fragment	0	6	0	0	0	0	0	6
Compound vertebra	2	0	0	0	0	0	0	2
Vertebra	16	31	44	0	0	0	2	93
Pectoral fin spine	12	0	0	0	1	0	0	13
Pelvic spine	0	8	0	0	0	0	0	8
Dorsal fin spine	0	26	0	0	0	0	0	26
Fin pterygiophores	0	32	4	0	0	0	3	39
Rib fragments	0	2	0	0	0	0	10	12
Anal fin spine	0	6	0	0	0	0	0	6
Neural spine	0	1	0	0	0	0	0	1
Intramuscular bone	0	1	0	0	0	0	0	1
Soft fin ray	0	0	0	0	0	0	3	3
Miscellaneous	0	0	0	0	0	0	209	209
Total	53	134	48	4	2	12	240	493

would have occurred in the river. To establish this, more samples, preferably from other sites as well, are needed. Modern research provides evidence that there are recent changes in the fish communities of the major rivers in the Kruger National Park (Russell & Rogers 1989). How these changes compare to the prehistoric fish population is at present impossible to estimate. Again, other finds may shed some light on this matter.

The presence of tigerfish in the Le 2 samples is of some interest. At present the dams and weirs in the rivers of the Kruger National Park and elsewhere, restrict the movement of these

and possibly some other fish species as well (Pienaar 1978).

Of interest is the absence of representatives of the genus *Labeo* (moddervisse). Not only are *Labeo* fairly common, but some species can grow large. *Labeo* sp. are not easily caught through angling. One may therefore argue that their absence from the deposits suggests that angling could have been the fishing method used. Should this have been the case, one would expect some evidence in the form of fishhooks represented in the cultural remains. No fragments of such implements were recovered. In addition, the evidence

Table 3

Le 2: skeletal parts represented of species other than fish. (B: bovids, C: carnivore, A: aardvark, Z: zebra, S: suid, G: giraffe, H: hare, R: rodent, B: bird, Re: reptile, F: amphibian)

Skeletal part	B	C	A	Z	S	G	H	T	B	Re	F	Total
Skull	8	0	0	2	0	0	0	0	1	0	0	11
Hyoid	4	0	0	0	0	1	0	0	0	0	0	5
Horncore	7	0	0	0	0	0	0	0	0	0	0	7
Atlas	0	0	0	1	0	0	0	0	0	0	0	1
Axis	1	0	0	1	0	0	0	0	0	0	0	2
Vertebra	0	0	0	0	0	0	0	0	0	2	1	3
Coracoid	0	0	0	0	0	0	0	0	1	0	0	1
Carapace	0	0	0	0	0	0	0	0	0	69	0	69
Rib	0	0	0	0	0	0	1	0	0	0	3	4
Sacrum	0	0	0	0	0	0	0	0	1	0	0	1
Scapula	7	0	0	1	0	0	1	0	0	2	1	12
Humerus	13	1	0	3	0	0	3	1	3	3	2	29
Radius	10	0	0	1	0	0	2	0	1	0	1	15
Ulna	3	0	0	0	0	0	1	0	2	0	0	6
Pelvis	20	0	0	0	0	0	1	0	0	1	0	22
Femur	3	0	0	1	0	0	2	0	2	5	2	15
Tibia/Fibula	10	0	0	0	1	1	4	0	0	0	0	16
Metapodial	16	0	0	5	1	2	0	0	0	0	0	24
Talus	6	0	0	0	0	0	0	0	0	0	1	7
Calcaneus	0	0	0	1	0	0	0	0	0	0	0	1
Patella	1	0	0	1	0	0	0	0	0	0	0	2
Sesamoid	3	0	0	0	0	0	0	0	0	0	0	3
Os centroquartale	3	0	0	0	0	0	0	0	0	0	0	3
Carpus/Tarsus	14	0	0	4	0	0	0	0	0	0	0	18
Phalanges	36	0	2	5	0	0	2	0	0	0	0	45
Total	165	1	2	26	2	4	17	1	11	82	11	322

available for Late Iron Age fishing techniques suggests that fish were mostly caught by means of a variety of fish traps designed for different water conditions. It seems therefore possible that the Le 2 inhabitants used fish traps in which *Labeo* could have been caught, but that the people preferred not to make use of these fish.

Conclusions

This study has shown that the Le 2 community obtained their animal protein through a variety of methods such as herding, hunting, gathering and fishing. The terrestrial fauna represented indicates that the general environment has not changed much since Late Iron Age times, although there is evidence for fluctuations in tsetse fly distribution.

The Le 2 community exploited the riverine environment to greater extent than any other Iron Age community thus far investigated in the region. It is possible that some fish species such as *Labeo* were not utilized for reasons as yet unknown. Although the cultural association of the Le 2 community with other Late Iron Age traditions has not yet been established, the presence of so many fish remains indicates that the people may have had some relationship with the Tsonga of eastern southern Africa. The Tsonga people are known for their fishing skills (Tinley 1964). There is no evidence to suggest that the people of Phalaborwa or the Venda were noted fishermen. Faunal remains from their sites contain very few fish bones (Plug 1988). Sites associated with the Sotho also contain little or no fish (Plug & Voigt 1985).

One may safely assume that the fish remains from Le 2 are from fish caught close to, or within walking distance of the site. The species identified were therefore living in that section of the river during prehistoric times. This includes tigerfish which do not occur there at present suggesting some changes to the riverine environment since Iron Age times. The installation of suitable fish ladders where they are not already present, should enable these fish to recolonize parts of the river.

As very little is known about the prehistoric distribution of fresh water fish in southern Africa, any archaeological site that may contain fish remains should be excavated with extreme caution. Fish remains are usually very friable and retrieval of items should be carefully monitored, particularly during the sieving and sorting processes.

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