

NORSEC



Fourth Interim Report on Analysis of Archaeofauna from Undir Junkarinsfløtti, Sandoy, Faroe Islands

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ABSTRACT: This report provides an update on the ongoing analysis of the Viking Age to Late Norse archaeofauna recovered during the 2003 – 2006 excavations at the site of Undir Junkarinsfløtti (UJF), Sandoy, Faroe Islands. Nearly 60,000 bone and shell fragments have been analyzed to date, some three quarters of which have been identified to species level. Throughout all occupation phases, the UJF archaeofaunal assemblage is dominated by bird, shellfish and fish remains, with domestic mammals making up no more than 5% of the total. In addition to domestic farm animals (cattle, pigs, sheep and goats), the Undir Junkarinsfløtti assemblage reflects an extensive and sustained exploitation of wild resources, particularly seabird populations (primarily puffins and guillemot). Fishing appears to have focused primarily on cod, with some evidence for on-site production of flat-dried fish.

Keywords: Faroe Islands, Zooarchaeology, Norse Settlement, Seabirds, Fishing, Farming

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INTRODUCTION

This report provides an update on the ongoing analysis of the archaeofauna recovered during the 2003 – 2006 excavations at the site of Undir Junkarinsflótti (UJF), Sandoy, Faroe Islands. These excavations revealed a Viking Age to Late Norse structure and associated midden material sealed by approximately 2 meters of sterile sand overburden (Arge 2001; Church *et al.* 2005; Lawson *et al.* 2005). Thus far, analysis of the faunal material recovered has resulted in the identification of nearly 60,000 bone and shell fragments, approximately three quarters of which have been identified to species level. Throughout all occupation phases at the site, the archaeofauna is dominated by bird, shellfish and fish remains, with domestic and marine mammals making up no more than 5% of the total.

This report is meant as a brief update and supplement to earlier bone reports (particularly Brewington 2010) and will forgo discussion of taphonomic factors and age-at-death profiles for the assemblage. It is, however, the first UJF report to present analysis of the (relatively scant) faunal material recovered from the very earliest phase of the site (UJF 0).

EXCAVATION AND RECOVERY

Excavations at Undir Junkarinsflótti were carried out following natural stratigraphy, with the removal of one layer at a time. Following NABO protocol, all deposits were dry-sieved using 4mm mesh, while bulk samples (2—12 liters) were taken from each context for flotation and sedimentary analyses (Church *et al.* 2005). Additionally, a series of Kubiena tin samples were taken for use in soil micromorphology analysis (*ibid.*).

Based on radiocarbon dates, stratigraphy, and artifact analysis, the occupational deposits excavated at the site have been separated into five phases: UJF 0, representing the earliest, ephemeral deposits; UJF 1 (dated to 9th—12th centuries calAD); UJF 2 (11th—12th centuries calAD); UJF 3 (11th—13th centuries calAD); UJF 4, representing the wind-blown sand deposits covering the archaeology; and UJF 5, representing the amended soil and topsoil, which is late- to post-Medieval in date. The faunal material discussed in this report comes only from phases UJF 1 through 3. These three phases will be referenced in this report when discussing temporal trends in the data. Such grouping is useful in that it produces larger sample sizes and a clearer picture of general changes in the faunal assemblage through time.

LABORATORY METHODS

Analysis of the Undir Junkarinsflótti archaeofauna has been carried out at the Hunter College and Brooklyn College Zooarchaeology Laboratories, making use of the extensive comparative skeletal collections at both laboratories, including specimens on loan from the American Museum of Natural History. All fragments were identified as far as taxonomically possible (selected element approach not employed), though most mammal ribs, long-bone shaft fragments, and vertebral fragments were assigned to “Large Terrestrial Mammal” (cattle-horse sized), “Medium Terrestrial Mammal” (sheep-goat-pig-large dog sized), and “Small Terrestrial Mammal” (small dog-fox sized) categories. Only those elements positively identifiable as *Ovis aries* were assigned to the “sheep” category, while all other sheep/goat elements were assigned to a general “caprine” category. Fish

identifications follow the most current ICAZ Fish Remains Working Group recommendations (including most cranial and vertebral elements), with only positively identified fragments being given species level identification, thus creating a large cod-family or *gadid* category as well as a substantial number of unidentified fish bones. Following NABO Zooarchaeology Working Group recommendations and the established traditions of North Atlantic zooarchaeology, we have made a simple fragment count (NISP) the basis for most quantitative presentation. Measurements of fish bones (made to the nearest millimeter using a Mitoyo Digimatic digital caliper) follow Wheeler & Jones (1989). Mammal elements have been measured following von den Driesch (1976). Mammal tooth-eruption and wear recording follows Grant (1982). General presentation follows Enghoff (2003).

Digital records of all data collected were made following the 9th edition NABONE recording package (Microsoft Access database supplemented with specialized Excel spreadsheets, available as a free download at <http://www.nabohome.org/index.html>). All digital records (including archival element-by-element bone records) and the faunal assemblage itself will be permanently curated at the Faroese National Museum. A digital copy of this report is available upon request from seth.brewington@gmail.com.

SPECIES PRESENT

Overview of Taxa

Analysis of the UJF faunal assemblage has identified several species of domestic mammals, birds, fish, and sea mammals. Domestic mammals make up a relatively small percentage of the total number of specimens identifiable to species level (NISP) in all three phases, ranging from a minimum of approximately 1.5% (in UJF 0 and 1) to a maximum of only about 5% (in UJF 2) (Figure 1). The UJF archaeofauna is instead characterized by large proportions of wild resources, particularly seabirds, fish, and mollusks. This pattern is markedly different than the patterns seen in contemporary Icelandic and Greenlandic sites (for discussion, see Brewington 2006, 2010).

Domestic Mammals

This report marks the first identification of horse bone from the Undir Junkarinsflótti assemblage, a metacarpus (lower foreleg bone) from UJF 2. However, the domestic component of the UJF faunal assemblage remains dominated in all phases by sheep and goat, or “caprines,” as they are collectively termed (Figure 2). Because sheep and goat skeletons are morphologically very similar to each other and are distinguishable on only a very few elements (Zeder & Pilaar 2010) the majority of sheep and goat material is only identifiable to the “caprine” level. Nevertheless, nearly all of the distinguishable caprine bones from the UJF assemblage (with the exception of one) have thus far been sheep. While this apparent paucity of goats at UJF is unusual in comparison with typical Norse North Atlantic sites, it might be attributable to the highly fragmented nature of the assemblage, a factor that has made differentiation of sheep versus goat impossible on all but a relatively few number of specimens.

As noted in previous reports (Brewington 2006, 2010) and publications (Arge *et al.* 2009), one unusual characteristic of the UJF domestic assemblage has been the apparent maintenance of significant numbers of pigs through all phases of occupation. These latest data generally support this pattern, with the notable exception of the very earliest phase (UJF 0), which produced no pig bone whatsoever. While this absence might initially seem significant, it is worth noting – not only

here but in all analyses involving data from this phase – that the total domesticate NISP for UJF 0 is only 20. This is a very low number, and the absence of pig bone here cannot therefore be interpreted as evidence for an absence of the actual animals at the site during this phase of occupation.

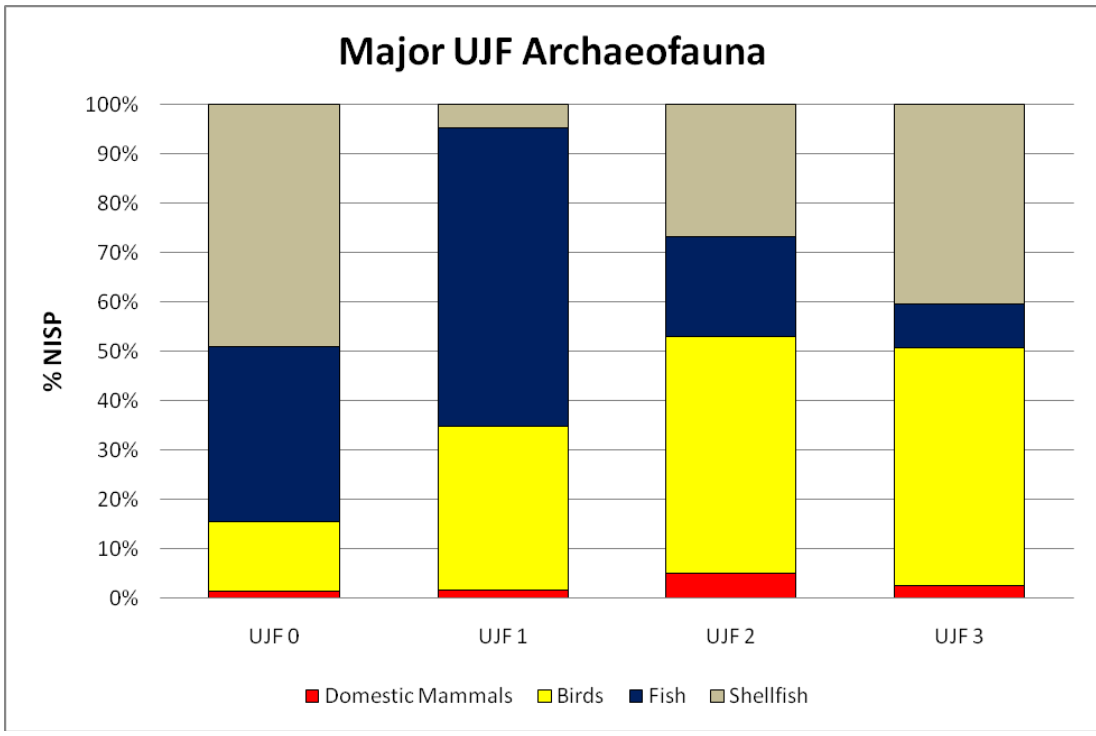


Figure 1.

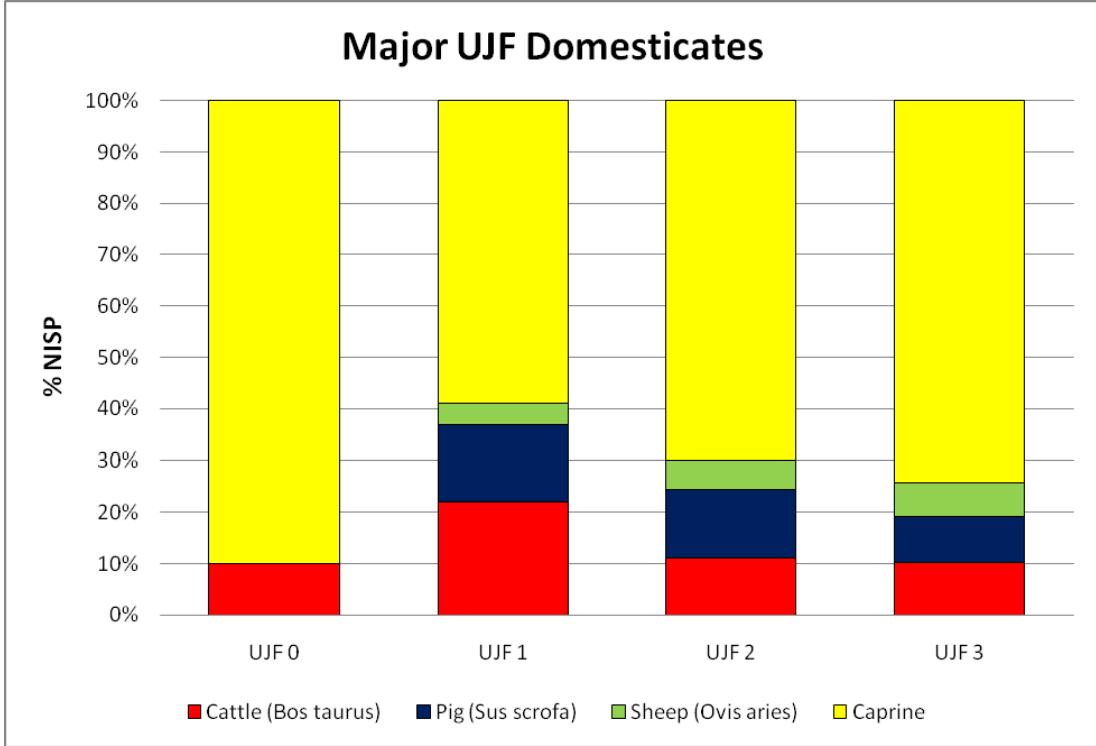


Figure 2.

If we disregard the very earliest phase, the pattern of cattle representation seen in earlier analyses (Brewington 2006, 2010) of the UJF archaeofauna remains that of a rather large decline after UJF 1. As noted in these reports, this pattern is typical of Norse North Atlantic sites, where the initial settlers of Iceland and even Greenland sought to keep relatively large numbers of cattle, presumably based on an ideal farming strategy more common (and feasible) in the Norwegian homeland (Amorosi *et al.* 1997).

Sea Mammals

The number of sea mammal bones identified in the UJF assemblage thus far has been relatively small. Most of the seal bone appears to be either grey (*Halichoerus gryphus*) or harbor (*Phoca vitulina*) seal. The whale bone continues to be very problematic in terms of speciation. As with the seal material, whale bone has been present in only small amounts in each phase. There is a rather dramatic “increase” in NISP for UJF 2, but it must be noted that this is due to the identification of several dozen bone fragments from one context; these fragments, like nearly all of the whale specimens identified thus far, are quite small (2cm or less in size) and appear to be the result of bone-working. The small size of these whale bone fragments prohibits a determination of species at present.

Birds

Puffins (*Fratercula arctica*) continue to dominate the identified avifauna in all phases at Undir Junkarinsflótti, followed in distant second place by the murre/guillemot (*Uria* species) (Figure 3). The overall picture of bird species representation has not changed significantly since the last report (Brewington 2010).

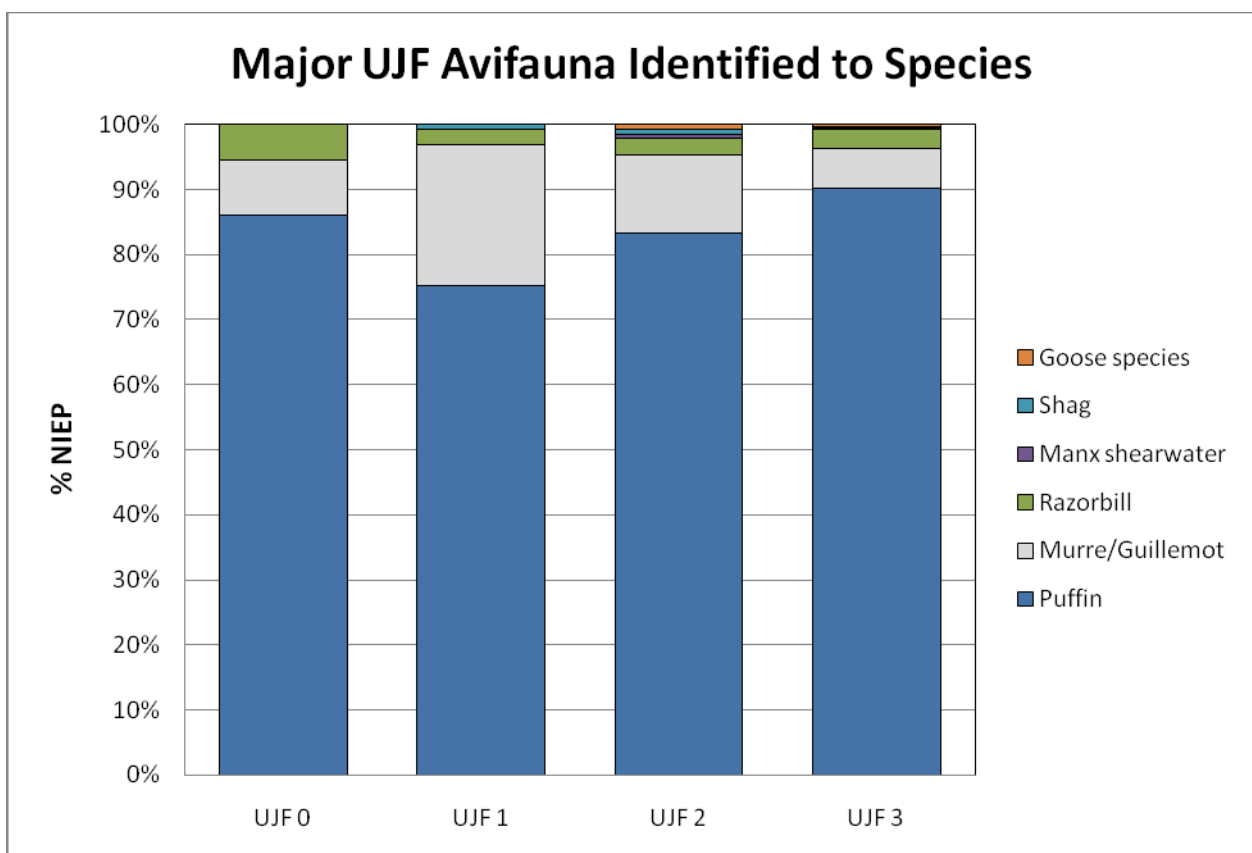


Figure 3.

Fish

Of the specimens identifiable to species level, the cod family (*Gadidae*) makes up by far the largest component of the Undir Junkarinsflótti fish archaeofauna, with the majority of cod bones belonging to the Atlantic cod (*Gadus morhua*) (Figure 4). As with the avifaunal data, the overall pattern of fish species exploitation represented in the UJF assemblage has not been significantly altered since last report.

Prior preliminary analysis of the UJF fish element representation has found an over-representation of cranial elements relative to axial, a pattern consistent with flat-dried fish processing (Brewington 2010). Though the current report does not add to the element representation data, forthcoming detailed analysis of the fish material will allow for a more complete understanding of the nature of fish exploitation and processing at the site.

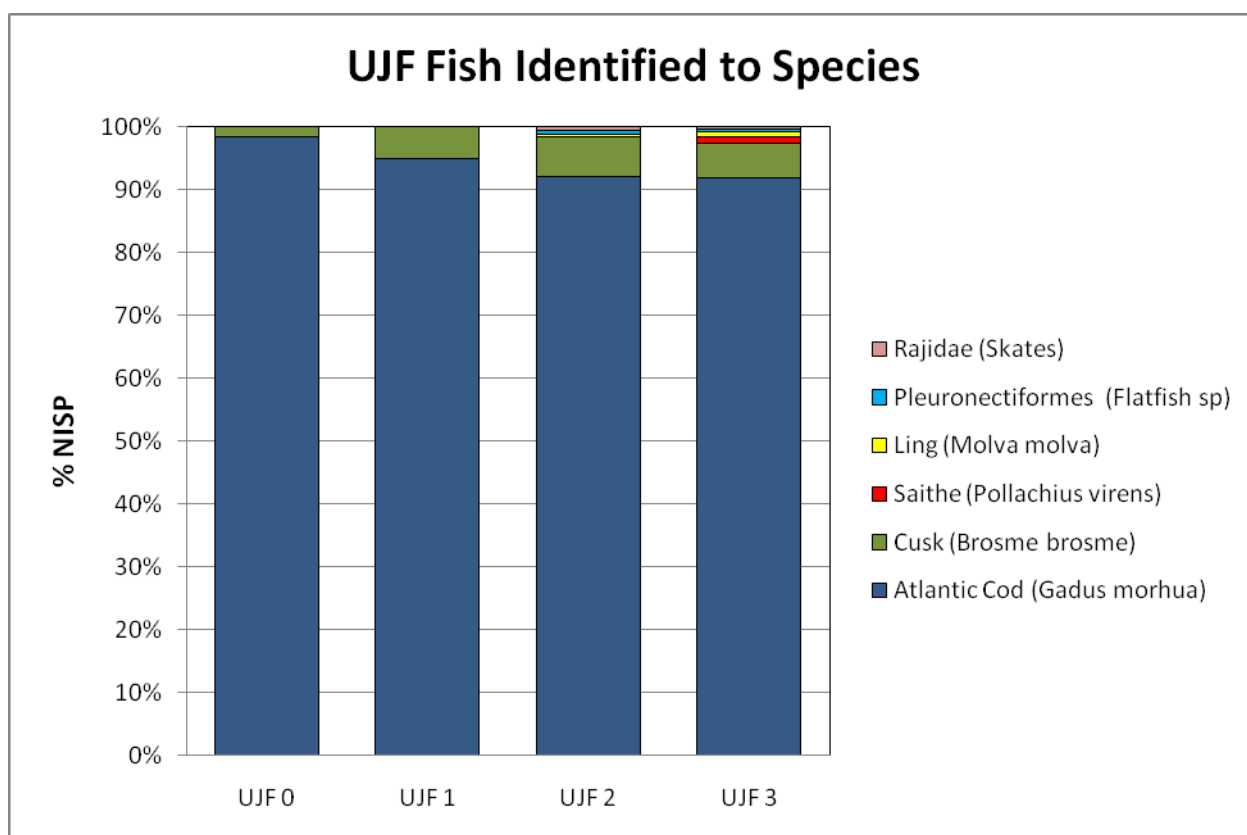


Figure 4.

Mollusks

As illustrated in Figure 1, mollusks make up a significant portion of the total Undir Junkarinsflótti archaeofauna in all phases except UJF 1. The great majority of the identifiable mollusk fragments (and probably most of the unidentifiable fragments as well) belong to the common limpet (*Patella vulgata*) (Figure 5).

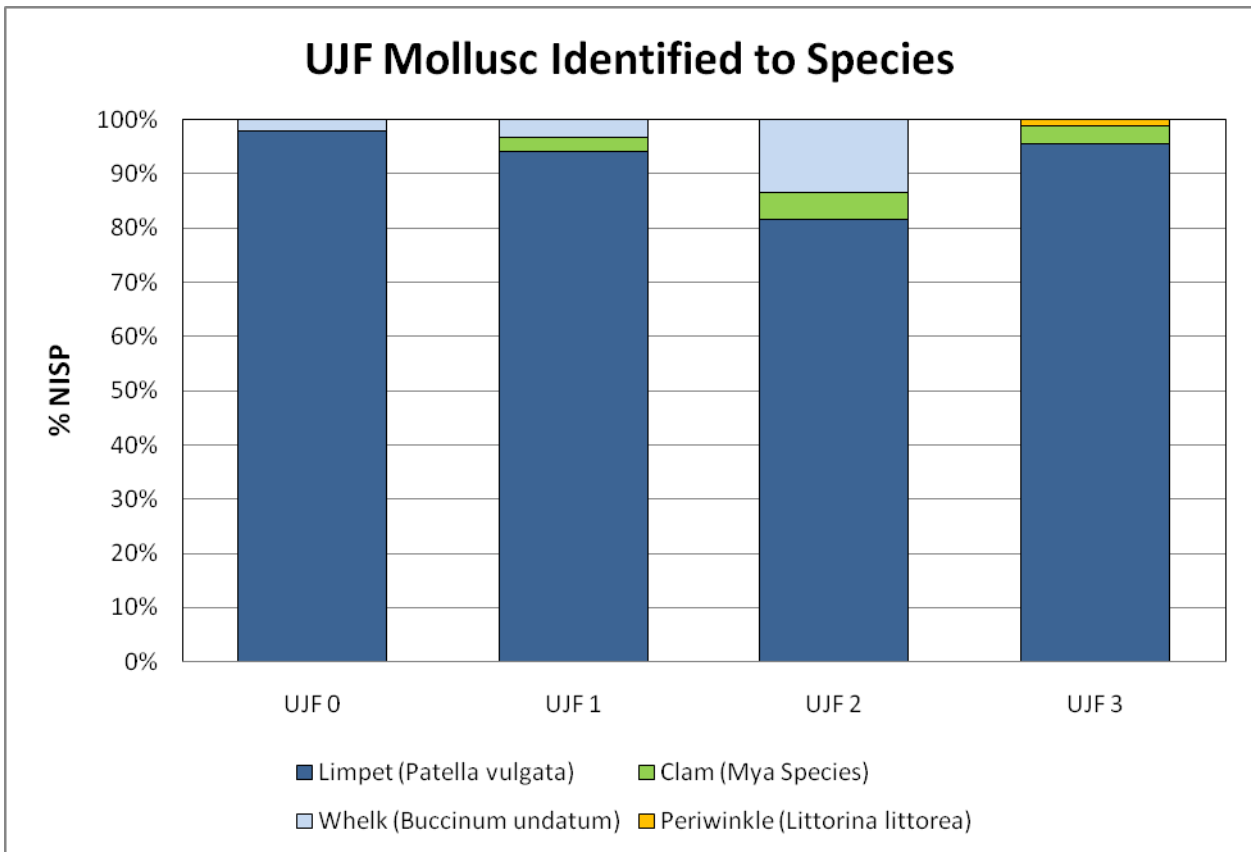


Figure 5.

DISCUSSION

Recent analysis of the Undir Junkarinsflótti archaeofauna has focused specifically on the earlier phases of the site. The resulting increase in NISP values for the earliest occupation phases does not appear to have significantly altered the general patterns seen in earlier reports (Brewington 2006, 2010). In all phases, domestic mammals remain relatively insignificant, in terms of NISP, when compared to wild resources (Figure 1). There remains a trend towards greater relative percentages of bird bone over time, and the same is true for molluscs, with the exception of UJF 0. The domestic component of the assemblage continues to be dominated by caprines, increasingly through time (Figure 2). The only real change from last report here is in UJF 2, which sees a relative increase in caprine and decrease in pig NISP. The patterns seen in the bird and fish components of the assemblage likewise remain essentially the same as those discussed in earlier reports; puffins and cod dominate the bird and fish assemblages (Figures 3 and 4). In short, when compared to contemporaneous sites in the Norse North Atlantic, the Undir Junkarinsflótti assemblage remains distinct (Figure 6) (see discussion in Brewington 2010).

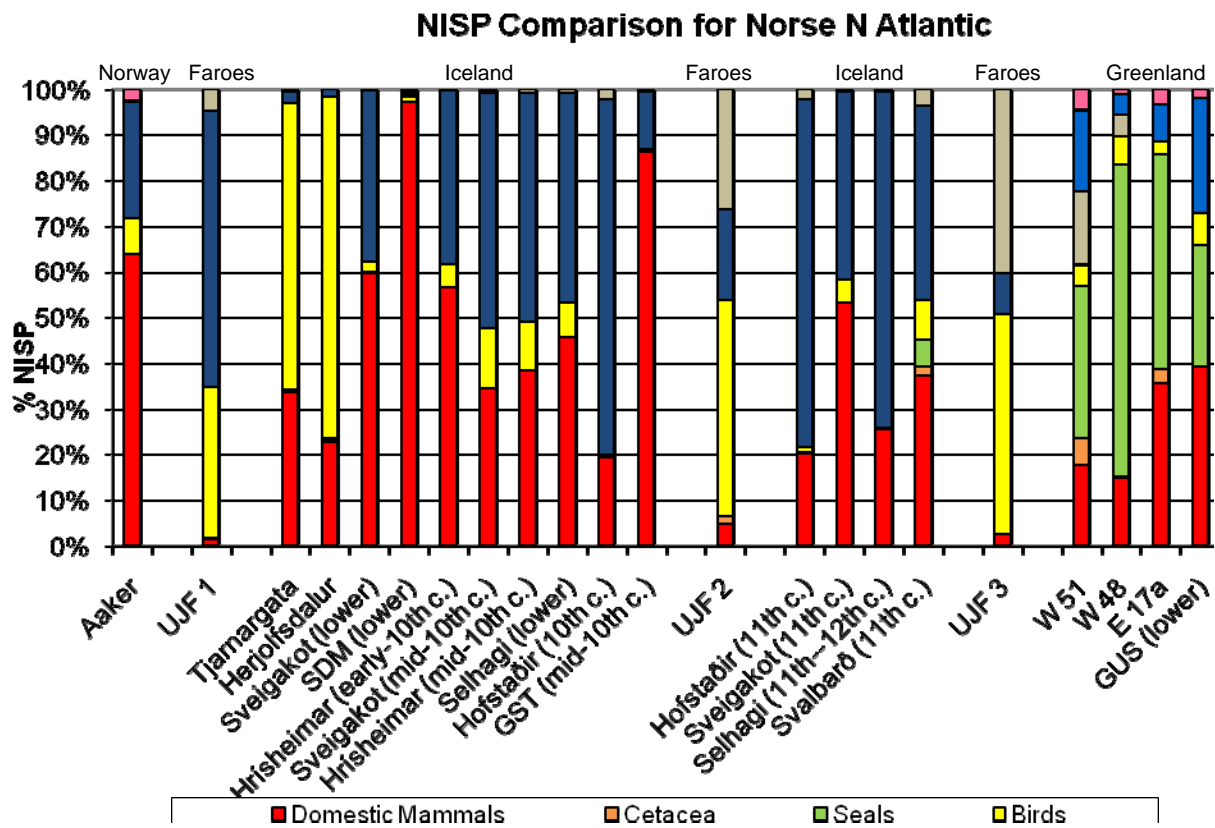


Figure 6.

CONCLUSION

Ongoing analysis of the Undir Junkarinsflótti archaeofauna continues to produce evidence of a subsistence economy well-adapted to the dynamic opportunities and constraints of the Faroese landscape, ecology and climate. Though primarily farming-based, the domestic economy reflected in the faunal data clearly relied on an extensive and sustained exploitation of wild marine resources. Forthcoming analyses will explore the nuances of these data more fully (a more detailed analysis of the fish bones, for example, will allow for a better understanding of the nature of fishing at the site). For now, however, it can at least be said that the UJF assemblage continues to represent a unique and important opportunity to study the early human-environment relationship in the Faroes.

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