

## Discussion

# Homo Sapiens Baymenesis

A Critique of the "Baymen Of The Great South Bay ..."

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Jeffrey Kassner is to be congratulated for venturing into the perilous waters of ecology and evolution in attempting to define the life style of Long Island's baymen. Kassner's paper fails almost immediately, however, since the concept of ecological niche, though pivotal to his thesis and implied throughout, is misapplied.

Niche is defined as the functional role of a population in its community. Modern ecological thought distinguishes between fundamental and realized niche – both of which are evolved characteristics of a species. Although it is impossible to determine the extent of the fundamental or total niche of a species, it is considered to be a genetically determined characteristic and a species cannot change its fundamental niche without undergoing profound genetic change. Realized niche is that portion of the fundamental niche that a population actually occupies.

*Homo sapiens* occupies a remarkably wide niche. They can survive at a wide range of temperatures, from arctic to tropical, can utilize an astounding variety of food, and are able to make use of a plethora of breeding sites – from high rise apartments to the back seats of autos, etc. To imply that the baymen occupy a unique 'baymen niche' apart from the remainder of *Homo sapiens* is to hold that the baymen are genetically different from the remainder of the species.

Moreover, to imply that the baymen are genetically different is to hold that they are a distinct species or, at least, a subspecies. By definition, a species is a group of organisms actually or potentially capable of producing a viable, fertile offspring. Thus, to apply the concept of 'baymen niche' fully, baymen should only be able to reproduce successfully with baywomen or baymen's daughters, and baywomen with baymen and their sons. This, obviously, is not the case since bay-people can, at least potentially, reproduce with yuppies of either sex.

A cardinal principle of evolution, overlooked by Kassner, is that of fitness. Modern ecological theory also predicts that the individuals filling their niche most successfully are the best adapted and, therefore, the fittest. Darwin's 'Survival of the Fittest' implies a differential reproductive rate with the fitter flourishing, having a higher reproductive rate and, thereby, producing more individuals for future generations. Over the long-term the sheer numbers of the offspring of the fit will overwhelm and outcompete those of the less fit; as the species changes so too does the niche. Fit baymen do not appear to have a higher reproductive rate than less fit baymen, nor do their offspring appear to be more efficient in occupying Kassner's 'baymen niche.'

The major variable distinguishing a bayman from a starfish in interspecific competition is the bayman's ability to become a used car salesman or a gas station attendant

when shellfish resources become scarce. The baymen turned gas station attendants do not change their genetically determined niche; rather they merely occupy a different segment of the niche filled by *Homo sapiens*. The starfish, on the other hand, cannot do this without profound genetic change. In reality, a non-human species filling the 'bay niche' exclusively would be forced to contend with ever increasing competition for a dwindling resource – the shellfish. The fittest would survive, reproduce and leave fitter offspring to continue the niche. The baymen's offspring, during good times and bad, are free to fill other *Homo sapiens* niches; they can become used car salesmen, gas station attendants or even bay management specialists!

Some might argue that when a bayman is forced to become a used car salesman, etc. he would have to make a significant cultural change. While this is true it would be a cultural, *not* a biological change. This is a much different change than a starfish would need to make should it be forced from the 'bay niche.' For a starfish to occupy the realized niche of a used car salesman it would have to change genetically, so drastically that it would no longer be a starfish. Nor could it return to its original bay niche should conditions improve.

A key factor overlooked by Kassner is the bayman's inability to live in harmony with his preferred resource. This is due to the obvious fact that shellfish are not the sole, nor necessarily the preferred food of the baymen. Rather, shellfish to the baymen, like cars to used car salesmen, are a commodity to be sold. Thus, the baymen, as do virtually all members of the species *Homo sapiens*, with the possible exception of primitive hunter-gatherer or agrarian societies, convert the primary food supply of their competitors into cash. Kassner equates cash with energy; which can then be converted into an alternate food supply such as noodles, be used to purchase an auto from our used car salesman, be saved or, in Kassner's terms, be converted into 'nonessential amenities.' This is a key difference in the use of a resource by the baymen vs. the starfish. The starfish can only use the energy garnered from the resource for growth, the repair of tissue and reproduction. The baymen can convert the resource into cash, save it or spend it on 'nonessential amenities.' The ability to save 'energy' or to use it to keep up with the Jones' invariably leads to overexploitation of the resource.

It might be argued that a starfish's ability to 'save' energy as fat is akin to the baymen's ability to save money or to acquire 'nonessential amenities.' During sustained hard times, however, once the starfish's fat reserves are depleted, it has no recourse save to seek new shellfish beds. The baymen, on the other hand, can always resort to other energy getting pursuits available in the very large *Homo sapiens* niche.

Thus, once shellfish resources become scarce the competition among starfish increases. The fittest should survive while the least fit will perish or migrate to another area. The baymen, on the other hand, can demand government intervention in the form of augmentation programs. In many areas on Long Island, particularly Brookhaven Town, the local government will grow shellfish in taxpayer supported hatcheries and throw them into the bay for the baymen to dig up and sell. A starfish population cannot expect this type of welfare system to intervene and allow them to continue to occupy their genetically determined niche. If this were the case the bay would be as full of marginally fit starfish as it is of baymen.

One might applaud Kassner for attempting to apply an ecological and evolutionary metaphor to anthropological thought. It is, however, important to base a metaphor of this sort on firm scientific concepts correctly applied to the case in point. Thus, even as a metaphor, the thesis fails. It might, therefore, be more fruitful for Mr. Kassner to investigate how cultural mores, lobbying and legislation can interact to convert 'rugged, independent individualists' into welfare recipients.