

A JUNK-FOOD HYPOTHESIS FOR SEABIRDS FEEDING ON FISHERY WASTE

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Worldwide fisheries generate large volumes of fishery waste and it is often assumed that this additional food is beneficial to populations of marine top-predators. We challenge this concept via a detailed study of foraging Cape gannets *Morus capensis* and of their feeding environment in the Benguela upwelling zone. The natural prey of Cape gannets (pelagic fishes) is depleted and birds now feed extensively on fishery wastes. These are beneficial to non-breeding birds, which show reduced feeding effort and high survival. By contrast, breeding gannets double their diving effort in an attempt to provision their chicks predominantly with high-quality, live pelagic fishes. Owing to a scarcity of this resource, they fail and most chicks die. Our study supports the junk-food hypothesis for Cape gannets since it shows that non-breeding birds can survive when complementing their diet with fishery wastes, but that they struggle to reproduce if live prey is scarce. This is due to the negative impact of low-quality fishery wastes on the growth patterns of gannet chicks. Marine management policies should not assume that fishery waste is generally beneficial to scavenging seabirds and that an abundance of this artificial resource will automatically inflate their populations.