

A POSSIBLE COMMON GUILLEMOT *URIA AALGE* x RAZORBILL *ALCA TORDA* HYBRID

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Wilhelm S.I., Walsh C.J., Stenhouse I.J. & Storey A.E. 2001. A possible Common Guillemot *Uria aalge* x Razorbill *Alca torda* hybrid. *Atlantic Seabirds* 3(2): 85-88: *Between 1996 and 2000, a probable Common Guillemot Uria aalge x Razorbill Alca torda hybrid was observed periodically among breeding Common Guillemots on Great Island, Newfoundland, Canada. Although the overall body shape and size of this individual were comparable to those of a Common Guillemot, it possessed traits that appeared intermediate between the Common Guillemot and the Razorbill. We suggest that hybridisation between these two auks may occur, albeit rarely, as a consequence of their extensive overlap in breeding range and close proximity within breeding colonies.*

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Evidence from mitochondrial DNA places the Razorbill *Alca torda* in the same Family (Alcidae) and Tribe (Alcini) as the Common Guillemot *Uria aalge* and Brünnich's Guillemot *U. lomvia* (Friesen *et al.* 1996). This genetic analysis suggests that Razorbills and guillemots evolved from a common ancestor, with the genus *Uria* later diverging into the two sister taxa observed today. Despite similarities in morphological characteristics and breeding biology between Common and Brünnich's Guillemots, only one account of hybridisation exists (Friesen *et al.* 1993). The occurrence of hybridisation between species is likely to occur only where their breeding ranges overlap. In the genus *Uria*, Brünnich's Guillemots occur primarily in the high Arctic, whereas Common Guillemots breed mostly in boreal and low Arctic regions (Nettleship & Evans 1985), with little overlap in breeding ranges.

The Razorbill, however, has a breeding range that overlaps extensively with that of the Common Guillemot (Bédard 1985; Nettleship & Evans 1985). Although Common Guillemots and Razorbills tend to occupy different habitats within their communal breeding grounds (Harris & Birkhead 1985), nest sites are often in close proximity; social interactions between the two species have recently been documented. For example, a male Razorbill, residing on a ledge of breeding Common Guillemots on Great Island, Newfoundland, has been observed in social interactions with Common Guillemots, including attempted copulation (Walsh *et al.* unpubl. data). Given the high likelihood of Common Guillemots and Razorbills encountering each other during the breeding season,

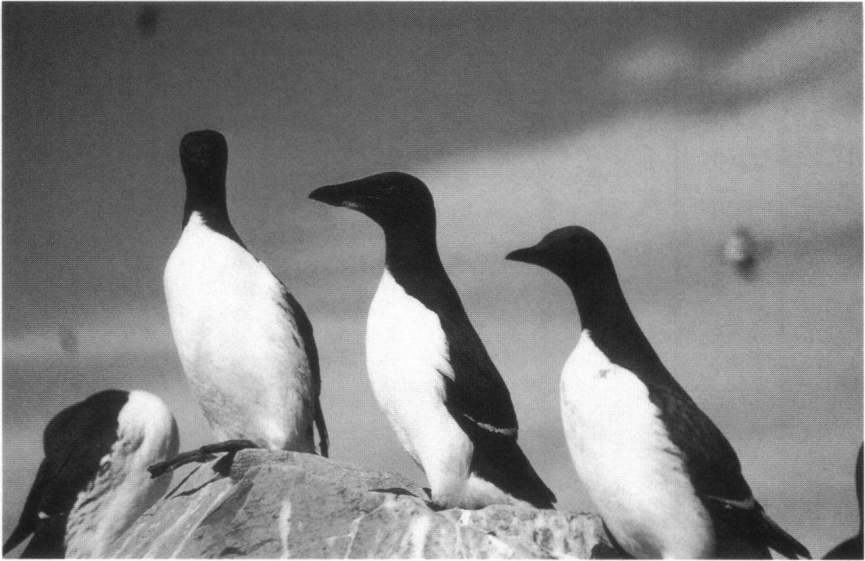


Figure 1. Between 1996 and 2000, a potential Common Guillemot x Razorbill hybrid has been present in a colony of breeding Common Guillemots on Great Island, Newfoundland, Canada (S.I. Wilhelm)

Figuur 1. Een potentiële hybride Zeekoet x Alk was tussen 1996 en 2000 aanwezig in een kolonie van broedende Zeekoeten op Great Island, Newfoundland Canada (S.I. Wilhelm).

and the observation that, in rare cases, they engage in interspecific courtship behaviour, then hybridisation between these species seems plausible.

Between 1996 and 2000, we observed an unidentifiable auk present sporadically in a colony of breeding Common Guillemots on Great Island, Witless Bay, Newfoundland, Canada (47°11'N, 53°49'W). The specific combination of morphological characteristics suggest that this individual was perhaps a Common Guillemot x Razorbill hybrid. Although its overall shape and size were similar to the Common Guillemot, it had several distinct traits that were more characteristic of the Razorbill. Most noticeably, its bill was shorter and considerably thicker than both the slender, pointed bill of the Common Guillemot and the heavy bill of the Brünnich's Guillemot, although it was not as laterally compressed as that of the Razorbill (Fig. 1). In addition, there were several distinct differences in plumage observed in all years: (1) the upperparts were darker than the dark brown upperparts of the Common Guillemot; (2) the secondaries appeared to be more narrowly tipped with white, characteristic of the Razorbill (Gaston & Jones 1998), whereas the white tips of the inner

secondaries of the Common Guillemot form a small area of white on the trailing edge of the wing; and (3) the individual had a white chin or throat patch immediately below the lower mandible. Also, compared with the Common Guillemot, the neck of this bird appeared shorter and thicker.

In each year this bird was observed, it occupied the same area within the colony. Interestingly, this was adjacent to the territory of a resident Razorbill on the same ledge (Walsh *et al.* unpubl. data). This site tenacity, along with distinct morphological characteristics, strongly suggests that the resightings across years are of the same individual. The bird appeared to be a prospecting male as it was observed attempting to copulate with a Common Guillemot and also fighting with several others.

Attempts to catch this individual have to date been unsuccessful, so in the absence of molecular evidence we cannot confirm that it is a Common Guillemot x Razorbill hybrid. In August 2000, a very similar bird was seen by experienced birders at Cape St. Mary's, a seabird colony approximately 100 km south-west of Great Island (D. Whittaker, pers. comm.). This sighting may have been of the same individual reported here, or a second possible hybrid. As hybridisation and opportunities to observe hybrids are generally rare (Grant & Grant 1992), the true incidence of hybridisation among seabirds may be underestimated.

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EEN VERMOEDELIJKE KRUISING TUSSEN DE ZEEKOET *URIA AALGE* EN DE ALK *ALCA TORDA*

Op grond van het mitochondriale DNA wordt de Alk Alca torda tot de familie van de Alcidae gerekend, net als de Zeekoet Uria aalge en de Dikbekzeekoet Uria lomvia. Genetische analyse suggereert dat Alken en zeekoeten van een gemeenschappelijke voorouder afstammen, waarna de zeekoeten verder differentieerden in twee soorten. Ofschoon beide groepen oppervlakkig gezien zowel wat betreft uiterlijk, als broedbiologie vele overeenkomsten vertonen, bestond er tot dusverre slechts één bekende geval van hybridisatie. Het voorkomen van kruisingen is het meest waarschijnlijk op plaatsen waar twee soorten in hun verspreiding overlappen. In het Noord-Atlantische gebied overlappen Dikbekzeekoet (hoog arctische streken) en Zeekoet (boreaal en laag arctische streken) weinig in hun verspreiding, maar de broedgebieden van Alken en Zeekoeten overlappen grotendeels. In de gemeenschappelijke broedgebieden bezetten beide soorten duidelijk verschillende habitats, maar toch komen op veel plaatsen broedvogels van beide soorten vlakbij elkaar voor. Sociale interacties tussen beide soorten zijn recent gedocumenteerd. Op Greatsland (Newfoundland) werd bijvoorbeeld een mannelijke Alk gezien die duidelijk geïnteresseerd was in een Zeekoet, waarmee het zelfs enkele keren probeerde te copuleren. Hybridisatie tussen Alk en Zeekoet lijkt aannemelijk.

Tussen 1996 en 2000 werd in Witless Bay (Great Island, 47°11'N, 53°49'W) af en toe een niet te identificeren alkachtige (een daadwerkelijke alk/zeekoet) gezien. De combinatie van uiterlijke kenmerken deed de waarnemers geloven dat het hier om een kruising tussen de Alk en de Zeekoet ging. Vorm en grootte waren die van een normale Zeekoet, maar het dier had een korte en opvallend hoge snavel, dikker en korter nog dan die van een Dikbekzeekoet, maar niet zo smal en hoog als die van een Alk (Fig. 1). De bovendelen waren duidelijk donkerder dan die van de omringende Zeekoeten, de armpennen hadden een smallere witte punt (karakteristiek voor de Alk) en het dier had een witte kin. In vergelijking met 'normale' Zeekoeten leek de nek korter en dikker. De vogel keerde elk jaar op dezelfde plaats terug en verbleef dan vlakbij het territorium van een Alk op dezelfde richel. Het was kennelijk een mannetje, getuige enkele pogingen van het dier om met een Zeekoet te copuleren. Vangpogingen (en daarmee een check van het DNA) zijn tot dusverre mislukt.

In augustus 2000 werd een vergelijkbare vogel gezien in de kolonie van Cape St Mary's, ongeveer 100 km verder naar het zuidwesten. Dit betreft misschien dezelfde vogel en anders een tweede geval van (vermoedelijke) hybridisatie.

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