COMMON GUILLEMOTS *URIA AALGE* SUCCESSFULLY FEED TWO CHICKS

ZEEKOETEN VOEREN MET SUCCES TWEE KUIKENS

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A pair of Common Guillemots Uria aalge *with a small chick adopted a second and successfully reared both to normal fledging age. A single day's feeding watch suggested that the pair doubled the normal feeding rate and the adults spent little time together at the nest-site, though the chick was never left unattended.*

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The Common Guillemot *Uria aalge* is an extremely social bird that nests at densities of up to 70 pairs per m² (Cramp 1985). It lays a single egg and has evolved an efficient auditory mechanism whereby an adult and its chick recognise each other (Tschanz 1968). Normally a breeding Guillemot will not tolerate a strange chick and either repels it or sometimes, if it is small, kills it but if the colony is severely disturbed, e.g. by a human intruder, adults will temporarily shelter or brood neighbouring chicks that have been left unattended (Tuck 1961). However, rarely a bird will help rear a neighbour's chick by sheltering it or, less commonly, feeding it (Tschanz 1979; Wanless & Harris 1985). Such helpers are generally failed breeders and care is usually restricted to brooding large chicks, often when both parents are away from the colony when food is difficult to find (Birkhead & Nettleship 1984). In 2000, while studying a completely undisturbed group of about 40 pairs of individually marked Guillemots on the Isle of May, Firth of Forth, Scotland on a day-to-day basis, we documented an instance of a pair of Common Guillemots with a small chick adopting another and raising both to fledging age.

On 7 June a three-day old chick fell from its nest-site, probably after a failed change-over by its parents, and ended up being brooded at another site, about 1m away, by a pair of adults which had failed to breed in 2000. The chick was present here until 10 June and during this time the true parents repeatedly tried to bring fish to it but were driven off by the site-owners. We did not watch continuously so do not know whether the chick received food from any of the four adults. The chick was missing on 11 June but the next day it was discovered two nest-sites away, about 0.5 m further down the cliff, being looked

after by foster parents that already had a two-day-old chick of their own. Both chicks were always brooded by a single adult, one under each wing and we did not see any aggression between the two young. The pair continued to brood and feed both chicks up to and including 25 June. The intruding young disappeared that night when aged 22 days, the age when a chick normally is taken to sea by the male parent who continues to feed the chick for several weeks (Varoujean *et al.* 1979). Many young Guillemots departed from the Isle of May colony that night so we assume that this adopted chick left the colony voluntarily, though since this chick's foster and true parents all continued to visit the colony the next and on subsequent days we concluded that the chick had not met up with an adult and had perished. The other chick was taken to sea by its male parent on the evening of 3 July when aged 23 days.

During 24 July we conducted an all-day watch on the 29 pairs with young in the study group. The foster-siblings, which always had at least one adult present, received a total of 12 feeds (6 small and 1 medium sprats *Sprattus sprattus,* 5 small sandeels *Ammodytes marinus*), 8 from the female and 4 from the male. We could not be certain how these fish were allocated but certainly both young received some. During the day the average time after a feed before one of the pair went off to forage again was 6.3 minutes and the pair spent a total of 75 minutes together. The other 28 young received between 2 and 8 fish that day (mean 5.4), members of pairs spent an average of 30 minutes together after a feed and a total of 162 minutes together during the day. Thus the pair with the two young increased the provisioning rate by 122%, decreased change-over time by 79% and decreased the total time the adults spent together by 54%.

This particularly experienced pair, that had remained intact from the start of our study in 1982 and reared a chick in 14 of the previous 17 seasons, appeared to have had little trouble feeding two young, although the species' unusual breeding strategy of the male taking the chick to sea and continuing to feed it precluded a truly successful outcome. The evidence suggests that 2000 was a moderate breeding season for Common Guillemots on the Isle of May with a breeding success of 0.73 young reared per pair and a mean weight of a chick near fledging of 252 g. These figures compare with means (± SE) of 0.79 ± 1.1 young and 251 ± 4.0 g for the period 1982-99. The outcome might well have been different in a less good season.

A very similar happening with a pair rearing two young to fledging age but with one leaving the colony without an adult has been reported in Brunnich's Guillemot *U. lomvia* (Gaston *et al.* 1995) but not apparently in the Common Guillemot. This is the only time that we have seen such an adoption in over 14 000 breeding attempts of Common Guillemots that we have documented on the Isle of May and thus must be considered quite exceptional.

Zeekoeten Uria aalge *zijn koloniebroeders die bij voorkeur dicht opeen gepakt 'nestelen' op smalle richels van steile kliffen, bijvoorbeeld op de Britse Eilanden. Zeekoetenpaartjes legeen slechts één enkel ei en het kuiken verlaat de kolonie als donsjong na drie weken met een lichaamsgewicht dat minder is dan de helft van dat van een adulte vogel. Ofschoon het buitengewoon sociale vogels zijn (broedend in dichtheden van meer dan 70 paar per m²), zullen broedende Zeekoeten geen 'vreemde' jongen in hun buurt tolereren en wanneer jongen van naburige paartjes toch te dichtbij komen, dan zullen zij of worden verjaagd (grotere kuikens) of doodgepikt (kleine kuikens). Alleen na grootschalige verstoring, bijvoorbeeld doordat mensen te dicht bij een volgepakte richel komen, kunnen wel eens tijdelijk de verkeerde jongen rekenen op de attentie en bebroeding van de verkeerde vogel. Nadat de rust is weergekeerd komen toch meestal alle kuikens weer bij hun eigen ouders terecht (of zij gaan verloren). Het is wel eens gezien dat een buurvogel 'hielp' bij het voederen van jongen van anderen, maar het gaat daarbij vrijwel zonder uitzonderingen om vogels waarvan het eigen legsel verloren is gegaan.*

In deze korte bijdrage wordt een geval gedocumenteerd waarin een toevallig (één richeltje) omlaag gevallen pullus door een ander paartje werd geadopteerd en werd grootgebracht tot de tijd gekomen was om in zee te springen. Het kuiken was eerst van het eigen nestplaatsje gerold (vermoedelijk tijdens een mislukte wisseling van de wacht van beide ouders) en kwam terecht bij een ander paartje. Deze adopteerden het jong kennelijk en verdreven de werkelijke ouders die met prooi aankwamen om hun jong in het verkeerde territorium te voeren. Het is niet duidelijk of het kuiken uiteindelijk gevoerd werd door één van de vier adulte vogels. Enkele dagen later was het jong echter verdwenen, maar het werd teruggevonden bij een ander paartje dat al een eigen jong verzorgde, een halve meter lager op de klif. Beide kuikens werden vervolgens bebroed door de pleegouders (onder elke vleugel een kuiken) en later werd vastgesteld dat beide jongen gevoerd werden. Alle waarnemingen wijzen erop dat beide kuikens met succes werden grootgebracht, althans tot op de leeftijd waarop de kolonie normaal verlaten wordt.

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