WHY SANDWICH TERNS *STERNA SANDVICENSIS* WORK HARD IN THE NETHERLANDS AND LIVE LEISURELY IN BELGIUM

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Parent Sandwich Terns *Sterna sandvicensis* alternate brooding and foraging duties. While one parent is at sea foraging, the other parent attends the chick(s). During good foraging conditions this synchronised behaviour results in a constant presence of one of the adults at the colony site. If food consumption rate of the chick drops below critical levels, however, parents start to leave their chicks unattended at the nest. At Griend, an isle in the Wadden Sea hosting the largest Dutch colony, foraging effort of Sandwich Tern parents was strongly linked to diet composition of their chicks. In years with high proportions of sandeel in the chicks' diet, parents left their chicks unattended more often. The reason for this is that sandeel are relatively long, conspicuous fish that are more easily lost to kleptoparasitising Black-headed Gulls *Chroicocephalus ridibundus* patrolling the colony site. High proportions of sandeel in the chicks' diet resulted in a high incidence of robbing which in turn led to increased biparental foraging. By increasing the foraging effort parents were able to compensate for an imminent food shortage and counterbalance negative effects on chick growth and survival. Surpisingly, in Zeebrugge (Belgium) Sandwich Terns did not increase foraging effort when foraging conditions were poor. In some years chicks starved to death while parental attendance did not decrease. In such years, length frequency distribution of prey fish fed to the chicks showed anomalies suggesting that certain critical prey length were lacking from the chicks' diet. In Sandwich Terns increasing energy demands of growing chicks are met by adjusting prey size rather than increasing input rate to the colony. Therefore a continuous prey length spectrum is needed for proper growth of the chicks. When a certain prey length is missing, parents may not be able to compensate by bringing more small fish (energetically not feasible) whereas longer fish cannot be swallowed by the chicks. In poor years, prey fish of 5-8cm were missing form the prey spectrum. The presence of this prey size was crucial for the survival of Sandwich Tern chicks in Zeebrugge.