Heronry drawing by David Athans.

Colonality also helps attract mates. Draulans (1988) found a high relationship between coloniality and conspicuous coloring, diurnal activity, and breeding above ground. These three factors make birds more noticeable and therefore potentially attractive to other birds.

Colony Size and Nest-Site Characteristics

The question of how many individuals should be in a colony is closely connected to the matter of nest-site selection. One determinant of where birds reside will be the number of potential nesting locations, although competition for sites will place some upper limit on the number of breeding birds in the colony. In addition, the amount of local food resources constrains colony size. This is more difficult to measure because the food resources available to colonial birds are usually not conveniently concentrated in a single spot, but rather are widely scattered (Gibbs et al. 1987).

A recent review article that synthesizes a great deal of literature on this subject gives several reasons why colony sizes vary (Brown, Stutchbury and Walsh 1990). One idea is that birds disperse themselves in an "ideal free distribution." In other words, left to their own devices, birds of equal capabilities examine alternative nesting sites and select a colony size such that the payoff for all birds is the same. For example, the size of a colony may reflect the amount of food available within the maximum foraging range of colony residents. In a study of Great Blue Herons, there was a "significant positive correlation between colony size and the area of tidal and inland wetlands within 20 km of the colonies" (Gibbs et al. 1987). That is, the more food that was available nearby, the larger the colony.

Other data suggest that optimum colony size varies for different individuals within the same species. Among herons, evidence exists that in large colonies, individuals have a higher average reproductive success, likely resulting from the social effect of being able to avoid predators within a large group. This raises the question of why herons would ever choose a small colony where they are less likely to produce successfully. It is speculated that individual birds do not have "sufficient or reliable enough information to make optimal choices of colony size." (Brown, Stuchbury, and Walsh 1990).

Regardless, in a real sense, every year birds must decide where to nest. In some years this decision is easier