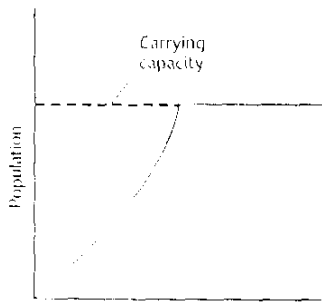
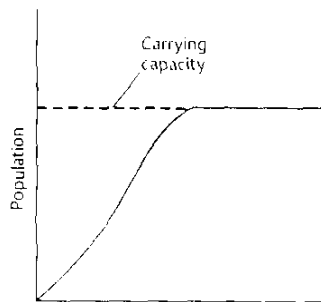


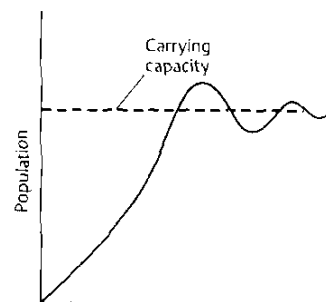
Fig 3 Popⁿ growth: carrying capacity relationships.



Model 1: The rate of increase may be unchanged until the ceiling is reached, at which point the increase drops to zero. This highly unlikely situation is not supported by evidence from either human or animal populations.



Model 2: The population increase begins to taper off as the carrying capacity is approached, and then levels off when the ceiling is reached. Populations which are large in size, have long lives and low fertility rates, conform to this S-curve pattern.



Model 3: The rapid rise in population exceeds the carrying capacity, resulting in a sudden check e.g. famine, birth control. The population recovers and fluctuates, eventually settling down at the carrying capacity. This J-shaped curve is more applicable to populations which are small in number, have short lives and high fertility rates.