On early spring mornings, when there is still frost in the air and the buds on the fruit trees have scarcely begin to swell, bands of pinion jays that forage over the gravelly juniper-pinion foothills of the Sangre de Cristo mountains of northern New Mexico where I live come to a feeder in my back patio. Soon they will be starting to breed with courting activities, pairing, and nest building, and then these flocks will disappear, only to return late in summer following after the new generation of jays is fully fledged. In 1976, after a winter away from home, I hung the feeder from a dwarf apple tree growing beside a small goldfish pond which is heated against freezing during the cald months. The water is as great an attraction for birds as is the food; robins drink from and bathe in the pond all the year around together with finches and sparrows. The latter guickly discovered the feeder and it was their bustling activities together with and the splashing of the robins that caught the ever-alert eyes of the jays.

Their first appearance shortly after sunrise was like an invadiog army; they pre-empted every place a bird could occupy on and around the apple tree. The smaller birds vanished; only three or four intrepid robins were able to hold their own against the hoard on the far side of the pool. The tree was loaded with dark gray-blue birds; they swarmed over the feeder, pushing each intent on holding his place and and and shoving/pecking at oneanother and spilling quantities of seed on the ground where other jays couded shoulder to shoulder to gobble up the seeds that rained large "Because of the/size of the flock and down spilled by the greedy ones above. at the feeder the over-crouding at the focus of attraction a continuous exchange occurred/ toly and on the surrounding branches between the surficited birds and these unsatisfied ones insisting on a share. The exchange did not take place without conflict. Athose holding favorable perches fought back against the attempts of their comrades to displace them. Amid a cacophony of expostulatory sounds, mewings, cluckings and cawing The flashing the ones planting in for a landing and wings of the fluttering birds, e departer, In the backlighting of the recently risen sun produced a lively ation that filled the apple tree with a scintillation of light on for

traslucent feathers washed of all color.

As I watched this incredibly display beautiful display of aerial agility I thought how wonderful are birds, so perfectly adapted to life in the medium of the atmosphere/ each species according to its need from the albatross manie to the hummingbird. Unlike our clumsey mechanical inventions they seldom uncordingted flight have accidents meet with accidents attributable to malfuction or miscouroination. Only when confronted by the structures and traps and poisons of men, to which meas yet insufficient they/Kave not yethed/time to accommodate do they suffer mishap. On this earth enverancete Almos they have adapted to all possible combinations of mediums in the course of evolution. There are those at home almost exclusively on the wing like the frigate birds; those that divide their time between air and water equally with and thank and as do only minimal use of land like the petrels; those that have abandoned flight in the atmosphere for what can best be described as flight in the sea - the flightless penguins V those odd/species found around the world that live exclusively on land- ostriches and kimis; Those that live in theperpetual darkness of caves from which they emerge only at night; and there are the gallinacious birds which live in marshes for whom flight seems to have become an increasing effort as it has for the roadrunner, a ground inhabiting cuckoo. flow In the course of species evolution birds have adapted to almost every assuming that habitat and ecological association. and that given sufficient time, free from the class survives a period of human interferance, they, will continue to adapt to adjust to develop ways of life reverbly adjusted to conditions more adverse than any they have yet been able to accept. presente class Consider the fishes: great order of fishes to which belong types that grow lungs, climb trees, and fly, albeit for no great distance as yet. Or consider the the cetaceans, to enter the world of fishes mammalian species/that have returned to the sea/ abandoning all dependence in the perspective of evolution on land. Is is not reasonable to expect that birds teo may become completely sequatik viviparous incubatiog their eggs internally within internally and thus adopt an entirely acquatic mode of life? Possible candidates for such

a trend are the grebes and penguins.

2