

# An omnivorous appetite

Mark Ridley

**The Correspondence of Charles Darwin. Volume 6 1856–1857.** Edited by F. Burkhardt and S. Smith. Cambridge University Press: 1990. Pp. 673. £35, \$49.50.

TOWARD the end of 1854, Darwin finally completed his eight-year study of barnacles. He was now free to return full-time to the species question. Throughout 1855, he planned, began and accelerated several lines of research on species, and from 1856 to 1857 — the years covered by volume 6 of *The Correspondence of Charles Darwin* — the work was gathering pace.

One large project was on varieties (that is, distinct subspecific forms). Down House became, temporarily, almost a global clearing-house of exotic domestic animals. "I am keeping alive all kinds of domestic pigeons, poultry, ducks", he told his old *Beagle* assistant Syms Covington; and in addition to the live fowls there were the dead ones to be skinned and 'skeletonized'. Darwin's appetite for specimens was omnivorous. On one day, he was after Tumbler pigeons from Walter Elliot in India (they have "the most remarkable inherited habits or instincts": for "when gently shaken and then placed on the ground, the pigeons begin tumbling head over heels"). On another, he was sending to a contact in the Shetlands for a wild rock pigeon. Tributes of fowls, dead and alive, continually poured in from all corners of the globe (often with an awkward postage bill): jungle fowls from West Africa; "Cock & Hen of larger breed, called Lari, from S. Persia"; Jamaican pigeon varieties from a contact of Philip Henry Gosse. Alfred Russel Wallace was collecting for him in the Malaysian archipelago, and the Rajah Brooke of Sarawak sent Borneo fowls ("not of much interest", says Darwin) and cat skins from his imperial domains.

Darwin also had an agent, William Tegetmeier, to work the auctions in London, and traded gifts with fellow fanciers. Thus he tells his son William (whose letters begin "My dear old Willy") how he has received a "present of Trumpeters, Nuns, & Turbits" and has successfully touched "a jolly old brewer" in London for "a pair of pale brown, quite small German pouters". In June 1856, Darwin reported to Tegetmeier that "I counted my pigeons the other day and I have 89" and, more significantly, writes two months later "I am crossing all my varieties to see whether crosses are fertile and for the fun of seeing what sort of creatures appear." That is, he was studying inheritance (not very successfully, it turned out) and was interested in whether any of the varieties had diverged enough not to interbreed (none had). Even without the loss of interbreeding, however, the

pigeons made their point. Charles Lyell visited Darwin at Down in April 1856 and Darwin showed him how the 15 varieties of pigeons he then had differed enough to make "three good genera and about fifteen species according to the received mode of species and genera-making of the best ornithologists."

The meeting with Lyell in April 1856 was an important turning-point. It persuaded Lyell that Darwin was on to something important, and Lyell suggested

arrived by dispersal. He told Hooker "I cannot but think that the theory of continental extension does some little harm by stopping investigation of means of dispersal." It certainly did not stop Darwin, and his experiments on dispersal add recurrent charm to the correspondence. He wrote round his correspondents to collect various types of plant seeds and animal eggs. Several botanists sent him seeds, and snail eggs came from Wollaston (these were particularly important, as Forbes had made a great case out of snails); but lizard's eggs turned out to be more difficult. "I have given up in despair trying to get lizard's eggs in England", he told his cousin William Darwin Fox in October 1856; though in February next year he was still hopeful. We never do find out whether he got any.

Once he had the eggs or seeds, he

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Down House, Kent — Darwin filled his home with all manner of natural specimens.

Darwin should put at least an abstract of his views into print. Darwin soon began work on an "abstract"; however (as was the way with Darwin) the mustard seed then started to grow. The abstract was abandoned for a much larger book: the book (to be called *Natural Selection*) that was never completed and was not published even in incomplete form until 1975.

Darwin and Joseph Dalton Hooker (now joined by Asa Gray) continued to discuss geographic distribution. An identical species sometimes lives both on an oceanic island and on the continent some distance away. Older biologists could explain the distribution by "multiple creations" but neither Hooker nor Darwin would have anything to do with that. "Poor E. Forbes" (as Darwin calls him) then suggested the distributions resulted from "continental extensions" that had subsequently sunk. Darwin disliked Forbes' (purely hypothetical) idea, because it required "continental extensions to every island whatever, and that I cannot swallow. Indeed even one continental extension is an awful gulp to me." But Lyell was vexingly sympathetic to the idea, and Hooker remained botanically aloof from the geologist's local squabble; so Darwin was left to protest alone against the sunken continents.

Darwin believed the island species had

immersed them for various periods in sea water to find out whether they could survive. The results were generally excellent. The snails eggs, after long immersion, hatched and "came quite to life and crawled about". Dispersal, Darwin reasoned, could be achieved not only by a seed floating on the sea, but also by one transported inside a bird's guts; and he duly investigated that too: "the hawks [he told Hooker] have behaved like gentlemen & have cast up pellets with lots of seeds in them." Finally, might not seeds be picked up by birds' feet on a muddy day? Darwin's health was too delicate for him to venture out in the rain: Parslow, Darwin's long-suffering butler, was the man for the job. "After heavy rain", one autumnal day, Parslow was evicted from his pantry to shoot partridges; he came back with a brace, but their feet, unsatisfactorily, had "very little dirt". The mail a week or two later brought better material: "I have just received a parcel of partridges feet well caked with mud!!!" What they made of all this in the village we are not told: but there must have been enough stories to have inspired Down's answer to P. G. Wodehouse. □

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