

certainly do not convey any very definite ideas to the uninitiated. We will, therefore, endeavour to explain in a few words what "Jacamars" and "Puff-birds" are.

The Jacamars or family "Galbulidæ" of naturalists form a small group of birds somewhat resembling the kingfishers in general external structure, but with zygodactyle feet, *i.e.* the toes placed two before and two behind, and with brilliant metallic plumage. They inhabit the forests of America from Guatemala to Southern Brazil, and are generally met with perched upon the outer branches of the trees, and capturing their insect-prey by short flights, after which they return to their former station—like our common flycatcher. The known Jacamars are nineteen in number, referable to six genera. Of all of these species and, in most cases, of both sexes of them, full life-sized figures are given in the present work, from the artistic pencil of M. Keulemans. Of the accompanying letterpress it need only be said that it embraces an account of all the particulars yet known respecting these birds, which at the present time in several cases amounts to very little, and in nearly every instance leaves much to be done before we can be said to have anything like a perfect knowledge of them.

Of the closely allied family of the Buconidæ or Puff-birds nearly the same may be alleged as regards our knowledge of their life-history. The dense wilds of South America need many further years of constant exploration and minute investigation before such particulars can be duly recorded. The Puff-birds are a more numerous group than the Jacamars. Mr. Sclater recognises forty-four species of the family Buconidæ, divisible into seven genera. These are treated in exactly the same way as the Jacamars, and illustrated in a similarly artistic manner. No one we think will be likely to find fault with the life-like way in which the artist has represented the various species. Even as a picture-book the Jacamars and Puff-birds form a most attractive volume.

The work now completed is uniform in size and style with Mr. Sharpe's "Kingfishers," Messrs. Marshalls' "Barbets," and Capt. Shelley's "Sun-birds," and forms one of the same series of illustrated Ornithological Monographs prepared by different Members of the British Ornithologists' Union. Nor is the series likely to end here, for we are informed that Mr. Dresser has a companion volume on the "Bee-eaters" in a very forward state, and that other similar works are already projected.

OUR BOOK SHELF

An Illustrated Essay on the Noctuidæ of North America, with "a Colony of Butterflies." By Augustus Radcliffe Grote, A.M., &c. 8vo. (London: Van Voorst, 1882.)

THE main feature in this beautifully-got-up little book consists in the four coloured plates, which depict forty-five of some of the most charming insects of the family of moths, to which the author has devoted his special attention. The species have all been previously described, but all those who have studied *Lepidoptera* know that it is often practically impossible to identify these insects from descriptions only, and will feel grateful to Mr. Grote for the help afforded by these plates, which are very beautiful. They will likewise thank him for identifying many of the North American species "described" by Walker, according to the types in the British Museum. This process of identifying Walker's types appears likely to occupy the attention of entomologists at least to the

end of the present century. The long introductory "Preface" (which forms more than a third of the entire text, and is paged continuously with it) is open to the suggestion of being too rambling in character, and of containing general matter, and polemics, foreign to the title of the book. The chapter on structure and literature will prove very useful. Here, as in the "Preface," a want of concentration in the remarks is observable. The supplementary "Colony of Butterflies" is the most successful part of the work from a literary (and perhaps also from a scientific) point of view. A curious butterfly of a genus of boreal proclivities (*Eneis semidea*) inhabits the summit of Mount Washington (in the White Mountains), above an elevation of 5600 feet to the summit (6293 feet), and is there isolated. Naturally this is associated with the glacial theory (and it might find many parallels in the Alps of Europe, &c.), and the author has contrived to give us a very instructive chapter on this subject, but we do not gather how he came to know that the "colony" first settled "about one hundred thousand years ago."

Six Months in Persia. By Edward Stack. 2 vols. (London: Sampson Low and Co., 1882.)

NOTWITHSTANDING some serious drawbacks, this work will be accepted as a useful contribution to our knowledge of a country about which much ignorance still prevails. It embodies the results of a journey made through the central provinces of Persia last year by a promising member of the Bengal Civil Service *en route* for England. By departing, wherever possible, from the beaten tracks along the main highways between the Persian Gulf and the Caspian, the traveller has succeeded in collecting much useful information regarding many districts about which very little was hitherto known. But the journey having been specially undertaken at some personal inconvenience in the interests of geographical research, it seems all the more surprising that more forethought was not shown by the explorer in qualifying himself for the task. A little time devoted to a study of the broad principles of geology and botany, as well as to the simple methods of taking altitudes, would have enabled him to turn his opportunities to far better account. As it is, these branches of science are almost entirely neglected, and the space which might have been usefully occupied, with such subjects, is too often sacrificed to trivial details irritating to the reader, and swelling the work to undue proportions. As Damāvand was ascended, it would have been more satisfactory, for instance, to have checked the altitude of that famous cone (18,600 feet), taken some years ago by the Russian Caspian Survey, than to be told that at one place there were two little shrines "with small blue domes, date groves and water," at another a ruined mud fort, further on many other ruined mud forts, that one man asked him "endless questions about England which I answered to the best of my ability for the space of two hours," that another "gave me a good dinner," and so on for page after page. Nevertheless some important work, chiefly of a topographical character, was carried out and carefully recorded in the region between Shiraz and Lar, in the Saidábád and Karmán districts, in the neighbourhood of Yazd, and especially in the Bakhtari highlands west of Isfahán. Here the orography and hydrography of the Chahar Mahal and Zarda-kuh uplands were carefully surveyed, and a fresh route explored thence northwards to Gilpaigan. As, according to the latest accounts, the Bakhtari hillmen are again threatening to give trouble to the Prince-Governor of Isfahán, this information may soon prove valuable. These fierce nomads are of the same race and speech as the Kurds, who committed such havoc in the Urmia district last year, and who seem to be again preparing for fresh raids on the Turco-Persian frontier between Azerbaijan and Armenia.