

likewise of concern to the community benefiting from the research, is the conservation of the wild animals. The ubiquitous rhesus monkey (*Macaca mulatta*) is showing signs of depletion in parts of Asia, and the golden tamarin (*Leontideus rosalia*) in Brazil is said to be near extinction.<sup>1</sup> In addition to the depletion of wild animals by their capture for research purposes must now be added the ever increasing deforestation resulting from agricultural development in tropical countries. J. R. Napier<sup>1</sup> has indeed suggested that before the end of this century there will be few natural populations of non-human primates living undisturbed lives. Simply to conserve the species, therefore, and to ensure supplies for future biomedical research there is a need for setting up breeding colonies. Nor can humanitarian considerations be ignored. Scientists and medical men, whatever their specific field of interest, must have good reason to justify the transfer of wild animals to the restricted conditions of laboratories from the free life they previously enjoyed.

What may cause concern is the greater cost of breeding animals in captivity than catching them in the wild. A conditioned wild-caught rhesus monkey now costing £40 would cost not less than five times that amount if bred in captivity, thus bringing the cost of these animals up to that of some species of farm animals—cattle, for example—which are used in veterinary research. Smaller monkeys, such as marmosets, would cost much less, but even these are likely to cost more than £40 if bred under laboratory conditions. The feasibility of breeding monkeys is well established,<sup>13</sup> and the economic aspects have been summarized by W. I. B. Beveridge.<sup>13</sup> He stated, "Now that this background of scientific knowledge is available, commercial breeding is a matter of technology and economics, in other words animal farming." . . . "Basically, monkeys are not so very different from other animals."

Research workers have a duty now to look to the future and plan the controlled breeding of the species they are likely to need. For the present only wild-caught monkeys in plentiful supply should be used, and then only when no other laboratory-bred animal would be suitable.

<sup>1</sup> Napier, J. R., *Proceedings of the United States National Museum*, 1968, 125, No. 3662.

<sup>2</sup> Department of Education and Science, Summary of Statistics, Animals (Restriction of Importation) Act 1964. London, H.M.S.O., 1968.

<sup>3</sup> Ruch, T. C., *Diseases of Laboratory Primates*. Philadelphia, Saunders, 1959.

<sup>4</sup> *Technical Report Series No. 470*. Geneva, W.H.O., 1971.

<sup>5</sup> Coid, C. R., in *Laboratory Animal Handbooks*, ed. F. T. Perkins and P. N. O'Donoghue, No. 4, p. 213. London, Laboratory Animals Ltd., 1969.

<sup>6</sup> Boulger, L. R., *Lancet*, 1966, 1, 941.

<sup>7</sup> Richardson, J. H., and Humphrey, G. L., *Laboratory Animal Science*, 1971, 21, 1083.

<sup>8</sup> Perkins, F. T., and Hartley, E. G., *British Medical Journal*, 1966, 1, 899.

<sup>9</sup> Smith, C. E. G., Simpson, D. I. H., Bowen, E. T. W., and Zlotnik, I., *Lancet*, 1967, 2, 1119.

<sup>10</sup> Rabies (Importation of Mammals) Order, 1971, No. 2045.

<sup>11</sup> Perkins, F. T., and O'Donoghue, P. N., *Laboratory Animal Handbooks*, No. 4. London, Laboratory Animals Ltd.

<sup>12</sup> Coid, C. R., *Journal of the South African Veterinary Medical Association*, 1970, 41, 157.

<sup>13</sup> Beveridge, W. I. B., *Breeding Primates*, p. 180. International Symposium on Breeding Non-human Primates for Laboratory Use, Berne 1971. Basle, Karger, 1971.

## Undergraduate Teaching in Anaesthetics

The role of anaesthetics in the undergraduate curriculum was discussed at a recent seminar organized by the Faculty of Anaesthetists of Great Britain. Heads of anaesthetic de-

partments and deans of undergraduate medical schools were invited to it, as well as representatives of the General Medical Council and the Association of Anaesthetists and undergraduates. It was apparent that the teaching of undergraduates by anaesthetists is not uniform throughout the country. In some centres there is no contact between them; in others the contribution by anaesthetists to teaching is considerable. The extent to which anaesthetists teach tends to be greater where there is an established university department. London University appears to be behind provincial universities in this respect. Though the teaching of anaesthesia was not specifically mentioned either in the G.M.C.'s recommendations on basic medical education or in the report of the Royal Commission on Medical Education, there was general agreement at the seminar that it is in the interest of the aspiring doctor.

Anaesthetists can make useful contributions to instruction in physiology and pharmacology and to the education of undergraduates in such subjects as the care of the unconscious patient and the maintenance of blood volume. And, with members of other disciplines, they can contribute in topic teaching on such subjects as the management of poisoning and chronic pain. Moreover, a period of instruction in anaesthesia is popular with most undergraduates because it allows them to carry out practical procedures on patients. Students can also see what a career in anaesthetics has to offer.

Opinions varied on where anaesthetic teaching should lie in the undergraduate timetable. There was a general view that teaching of anaesthetics in the clinical period could be profitably combined with surgical appointments. The student then has the opportunity of finding a role in the preoperative, operative, and postoperative care of patients. The opportunity for students in either their fourth or fifth year to take an elective period of six weeks to three months in anaesthesia away from their own centre, in this country or abroad, might be encouraged if it is financially possible. But whether anaesthesia and related topics should be included in the final qualifying examinations is still open to debate.

## Not Quite £1 plus 4%

N.H.S. doctors needed no crystal ball to forecast the outcome of their 1973 pay review (*Supplement*, p. 5). As might have been expected, the Review Body was not so independent as to ignore the Government's incomes policy in making its recommendations, so the scope for innovation or surprise was limited. The profession will, however, be disappointed that Lord Halsbury and his colleagues failed to take full advantage of the Government's "group formula" for redistributing incomes to the less well off. Money due to doctors earning more than £4,590 a year under the £1 + 4% formula could not be paid because the increase would have exceeded the individual £250 pay code limit,<sup>1</sup> but within the terms of the Government's formula this could have been passed on to lower paid doctors. The profession had agreed to doctors being treated as one group on this occasion (a summary of the profession's evidence appears in the *Supplement* p. 9), and it was theoretically possible for junior house officers to have received 14% and still be within the law. In the event they will only get 9.4%, with registrars receiving 8.2% and top-of-the-scale senior registrars 6%.