A Discussion on human adaptability in a tropical ecosystem
An I.B.P. human biological investigation of two New Guinea communities

Organized by G. A. Harrison and R. J. Walsh
NOTICE TO CONTRIBUTORS TO PROCEEDINGS AND PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY

The Royal Society welcomes suitable communications for publication in its scientific journals: papers estimated to occupy up to 24 printed pages are considered for the Proceedings and longer papers and those with numerous or large illustrations for the Philosophical Transactions.

Detailed advice on the preparation of papers to be submitted to the Society is given in a leaflet available from the Executive Secretary, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG. The ‘Instructions to authors’ are also printed in every fifth volume of the Proceedings A and B (volume numbers ending in 0 or 5). The basic requirements are: a paper should be as concise as its scientific content allows and grammatically correct; standard nomenclature, units and symbols should be used; the text (including the abstract, the list of references and figure descriptions) should be in double spaced typing on one side of the paper; any diagrams should be drawn in a size to permit blockmaking at a reduction to about one half linear, the lettering being inserted not on the original drawings but on a set of copies; where photographs are essential the layout should be designed to give the most effective presentation.

The initial submission of a paper should normally be through a Fellow or Foreign Member of the Society, but subsequent correspondence will be conducted direct with the author. The latest lists of Fellows and Foreign Members are to be found in the current edition of the Year Book of the Royal Society. In the event of any difficulty, an author is invited to send the paper direct to the Executive Secretary.

No page charge is levied, and the first 50 offprints of a paper are supplied to the author gratis.

ASSOCIATE EDITORS FOR PHILOSOPHICAL TRANSACTIONS AND PROCEEDINGS OF THE ROYAL SOCIETY

(For Standing Orders see current Year Book)

B. Biological sciences

Professor B. B. Boycott
Professor P. W. Brian
Professor E. J. Denton
Professor T. N. George
Dr I. M. Glynn
Professor Henry Harris

Professor O. E. Lowenstein
Professor A. Neuberger
Dr A. G. Ogston
Professor W. S. Peart
Professor D. C. Phillips
Professor R. Riley
A DISCUSSION ON HUMAN ADAPTABILITY IN A TROPICAL ECOSYSTEM: AN I.B.P. HUMAN BIOLOGICAL INVESTIGATION OF TWO NEW GUINEA COMMUNITIES

Organized by G. A. Harrison and R. J. Walsh
for the Royal Society and the Australian Academy of Science

(Discussion held 21 June 1973 – MSS received 21 November 1973)

This issue of Philosophical Transactions is dedicated to the late Sir Lindor Brown, Biological Secretary of the Royal Society 1955–1963 and for a long time Chairman of the Royal Society I.B.P. Committee for the New Guinea Project. He was an enthusiastic supporter of the work reported here and much of its success is due to him.

CONTENTS

R. J. Walsh
Geographical, historical and social background of the peoples studied in the I.B.P. 223

R. W. Hornabrook
The demography of the population of Karkar Island 229

G. A. Harrison, R. W. Horns and A. J. Boyce
Movement, relatedness and the genetic structure of the population of Karkar Island 241

A. E. Mourant, F.R.S.
The hereditary blood factors of the peoples of New Guinea and the surrounding regions 251

P. B. Booth
Genetic distances between certain New Guinea populations studied under the International Biological Programme 257

G. H. Beavan, R. H. Fox and R. W. Hornabrook
The occurrence of haemoglobin-J (Tongariki) and of thalassaemia on Karkar Island and the Papua–New Guinea mainland 269

R. G. Harvey
An anthropometric survey of growth and physique of the populations of Karkar Island and Lufa subdistrict, New Guinea 279

R. W. Hornabrook, G. G. Crane and J. M. Stanhope
Karkar and Lufa: an epidemiological and health background to the human adaptability studies of the International Biological Programme 293

Vol. 268. B. 893. 19 [Published 1 August 1974]
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. G. NORGAN, A. FERRO-LUZZI AND J. V. G. A. DURNIN</td>
<td>309</td>
</tr>
<tr>
<td>The energy and nutrient intake and the energy expenditure of 204 New Guinean adults</td>
<td></td>
</tr>
<tr>
<td>J. E. COTES, H. R. ANDERSON AND J. M. PATRICK</td>
<td>349</td>
</tr>
<tr>
<td>Lung function and the response to exercise in New Guineans: role of genetic and environmental factors</td>
<td></td>
</tr>
<tr>
<td>J. M. PATRICK AND J. E. COTES</td>
<td>363</td>
</tr>
<tr>
<td>Anthropometric and other factors affecting respiratory responses to carbon dioxide in New Guineans</td>
<td></td>
</tr>
<tr>
<td>A study of temperature regulation in New Guinea people</td>
<td></td>
</tr>
<tr>
<td>G. M. BUDD, R. H. FOX, A. L. HENDRIE AND K. E. HICKS</td>
<td>393</td>
</tr>
<tr>
<td>A field survey of thermal stress in New Guinea villagers</td>
<td></td>
</tr>
</tbody>
</table>