

VOL. XLII, No. 1.

DECEMBER, 1940.

Price, Rs. 10 net.

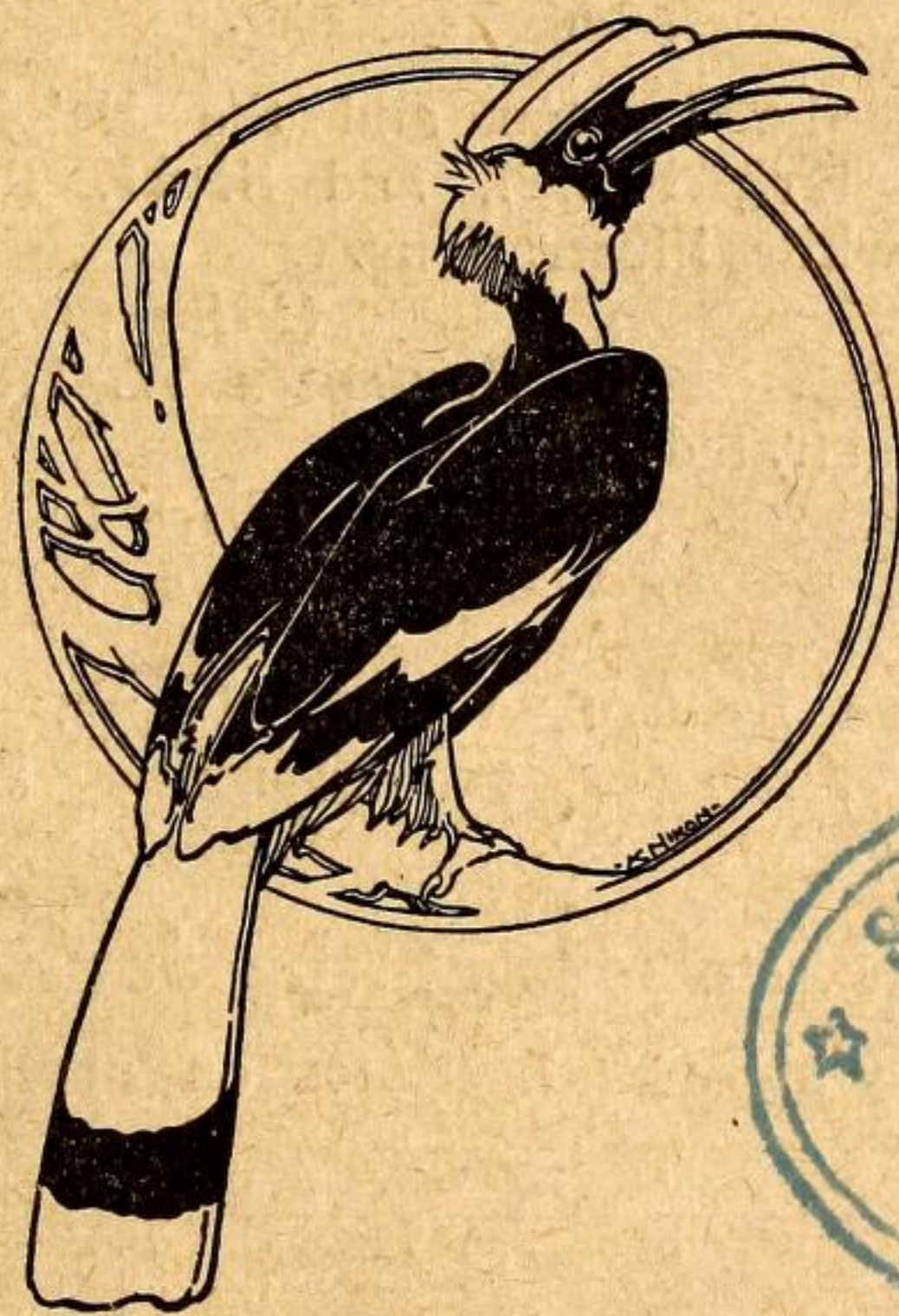
THE  
JOURNAL

OF THE

BOMBAY NATURAL HISTORY SOCIETY.

EDITED BY

REV. J. F. CAIUS, S.J., F.L.S., H. M. MCGUSTY,  
AND S. H. PRATER, M.L.A., C.M.Z.S.



PUBLISHED BY

**THE BOMBAY NATURAL HISTORY SOCIETY**  
**6, Apollo Street, Bombay.**

LONDON AGENTS :

DAVID NUTT. (A. G. BERRY)  
212, SHAFTESBURY AVENUE,  
LONDON, W.C. 2.



## CONTENTS OF VOLUME XLII, No. 1.

|  | PAGE |
|--|------|
| SOME BEAUTIFUL INDIAN CLIMBERS AND SHRUBS. Part V. By N. L. Bor, M.A., D.Sc., F.L.S., I.F.S., and N. B. Raizada, M.Sc. (With one coloured plate and three black and white plates, and seven text-figures) ... .. | 1    |
| THE POMEGRANATE. By Father J. F. Caius, S.J., F.L.S. ... ..  | 13   |
| THE EARLY STAGES OF INDIAN LEPIDOPTERA. Part V. By D. G. Sevastopulo, F.R.E.S. ... ..  | 38   |
| A REPTILE AND AMPHIBIAN MISCELLANY. Part II. By C. McCann, F.L.S. (With six black and white plates) ... ..   | 45   |
| THE ECOLOGY OF A TEMPLE TANK CONTAINING A PERMANENT BLOOM OF <i>Microcystis aeruginosa</i> (Kutz) Henfr. By S. V. Ganapati, M.Sc., A.I.C. ... ..   | 65   |
| THE GAME FISHES OF INDIA. Part XI. By Dr. S. L. Hora, D.Sc., F.R.S.E., F.Z.S., F.R.A.S.B., F.N.I. (With one coloured plate and four text-figures) ... ..   | 78   |
| A CONTRIBUTION TO THE LIFE HISTORY OF <i>Tridax procumbens</i> Linn. By I. Banerji. (With two plates and twenty-five text-figures) ... ..  | 89   |
| SOMETHING ABOUT SWORDFISH. By Lt.-Col. R. W. Burton, I.A. (Retd.) (With a black and white plate) ... ..  | 100  |
| NOTES ON SOME NEW AND INTERESTING BUTTERFLIES CHIEFLY FROM BURMA. Part II. By Major-General Sir Harry Tytler, K.C.B., C.M.G., C.I.E., D.S.O. ... ..  | 109  |
| A CONTRIBUTION TO THE FLORA OF THE PUNJAB PLAINS AND THE ASSOCIATED HILL REGIONS. By Dr. T. S. Sabnis, B.A. (Hons.), D.Sc., F.A.S.C., I.A.S. ... ..  | 124  |
| BURMA'S DECREASING WILD LIFE. By D'Arcy Weatherbe. (With two plates) ... ..  | 150  |
| SOME COMMON INDIAN HERBS WITH NOTES ON THEIR ANATOMICAL CHARACTERS. Part V. By M. Sayeedud-Din. (With two plates) ... ..   | 161  |
| THE DEATH EXPEDITION OF HIBISCUS CATERPILLARS (larvae of <i>Crocallis</i> sp.) By G. C. Bhattacharya. (With a plate) ... ..  | 164  |
| THE MEDICINAL AND POISONOUS FLAXWORTS OF INDIA. By J. F. Caius, S.J., F.L.S. ... ..  | 167  |
| A STUDY OF THE COURTING HABITS OF <i>Myrmarachne plataleoides</i> (Cambr.) A SPIDER MIMIC OF THE INDIAN RED-ANT, <i>Oecophylla smaragdina</i> . By A. P. Mathew, M.A. ... ..                                     | 171  |
| <br>REVIEWS :—   |      |
| 1. A Facsimile of R. H. Beddome's Articles on Indian Reptiles 1862-1870. By Malcolm Smith ... ..   | 181  |
| 2. The Tetrapod Reptiles of Ceylon. Volume I, Testudinales and Crocodilians. By P. E. P. Deraniyagala ... ..   | 181  |
| WANTED INFORMATION ABOUT MAHSEER. Editors ... ..   | 182  |
| <br>MISCELLANEOUS NOTES :—   |      |
| I. How the Mongoose counteracts Snake Bite. By A. L'E. Brownlow ... ..   | 183  |
| II. A Large Panther—(A correction). By Yashodaar Singh of Khilchipur ... ..  | 183  |
| III. The Short-nosed Fruit-bat ( <i>Cynopterus sphinx</i> ) as an Agent of seed dispersal in the Wild Date ( <i>Phoenix sylvestris</i> L.). By C. McCann ... ..  | 184  |



|   | PAGE |
|---|------|
| IV. Jungle and House Crows as destroyers of Game. By K. S. Dharmakumarsinhji ... ..   | 185  |
| V. Notes on the nesting of Legge's Flowerpecker ( <i>Acmonorhynchus vincens</i> [Sclater]). By Cicely Lushington, (with a plate) ... ..   | 186  |
| VI. The Occurrence of the Yellow-bellied Flowerpecker ( <i>Pachyglossa melanoxantha</i> Hodgs.) at Almora, U. P. By S. H. Prater ... ..   | 187  |
| VII. The Occurrence of the Drongo Cuckoo ( <i>Surniculus lugubris</i> Horsf.) in the Punjab. By Mrs. A. B. M. Way ... ..  | 187  |
| VIII. A Note on the Alpine Swift ( <i>Micropus melba bakeri</i> Hartert). By C. McCann, F.L.S. ... ..   | 188  |
| IX. Vultures 'feeding' at night. By F. S. Lewis ...   | 189  |
| X. Injuries to the feet of a Mallard. By W. P. Keelan ...   | 191  |
| XI. Additional Notes on the Birds of Bombay and Salsette. By Humayun Abdulali and Sálím Ali ... ..  | 191  |
| XII. Some Birds of Lower Burma. By J. A. M. Symns ...   | 198  |
| XIII. Some Birds of the Oil fields, Burma. J. A. M. Symns   | 198  |
| XIV. Birds eating Butterflies. By S. F. Hopwood, I.F.S. ...   | 199  |
| XV. The many Banded Krait ( <i>Bungarus multicinctus</i> ) in Burma. By J. A. M. Symns ... ..   | 199  |
| XVI. Extension of the range of the Brown Whip Snake ( <i>Dryophis pulverulentus</i> Jan.) By C. McCann ...  | 200  |
| XVII. Frog eating a Snake. By R. K. Dharmakumarsinhji ...   | 200  |
| XVIII. Notes on the Geographical distribution and larvicidal propensities of <i>Horaichthys setnai</i> Kulkarni. By T. J. Job, M.Sc. ... ..   | 201  |
| XIX. Notes on the Early stages in the development of the Deccan Killifish <i>Aplocheilus lineatus</i> (Cuv. and Val.). By S. Jones, M.Sc., and T. J. Job, M.Sc., (with two text-figures) ... .. | 203  |
| XX. Butterflies attracted by moist earth. By R. E. Parsons, F.R.E.S. ... ..   | 206  |
| XXI. On the larva of the moth ( <i>Circula triperestrata</i> ) and the destruction of the cocoons by Tree Shrews. By R. E. Parsons, F.R.E.S. ... ..   | 207  |
| XXII. <i>Lagerstroemia indica</i> as a food plant of the Silk Moth ( <i>Actias selene</i> ). By R. E. Parsons, F.R.E.S. ... ..  | 208  |
| XXIII. The Weeping Willow ( <i>Salix babylonica</i> ) as a food plant of the Moth <i>Loepa katinka</i> Westw. By R. E. Parsons, F.R.E.S. ... ..   | 209  |
| XXIV. The Wood-cutting Wasp ( <i>Sphex edax</i> Bingham) and its prey in Salsette. By C. McCann ... ..  | 209  |
| XXV. Larva of <i>Theretra lycetus</i> Cr. parasitized by Tachinid flies. By C. McCann. ... ..   | 210  |
| XXVI. March Lepidoptera at Gopalpur (Dist. Ganjam). By D. G. Sevastopulo, F.R.E.S. ... ..   | 211  |
| XXVII. Some insects from a Mango trunk ( <i>Mangifera indica</i> L.) By C. McCann ... ..  | 212  |
| XXVIII. Insects at a street lamp at Andheri. By C. McCann ...   | 213  |
| XXIX. Some Indian Spiders: Their season of prosperity. By T. V. Subrahmanyam ... ..   | 217  |
| XXX. Theft of a watch by a Fiddler Crab. By Violet Dickson  | 219  |
| Proceedings of the Annual General Meeting—1939 ...  | 221  |



# BURMA'S DECREASING WILD LIFE.

BY

D'ARCY WEATHERBE.

(With two plates).

## INTRODUCTION.

Were it possible to prepare a careful chronological record, covering the past 50 years, from all available reliable sources, including big-game hunting and shooting records, in countries of the Empire, indicating the quantity of game existing, the results would be of intense interest and value. They would disclose in all countries such an appalling decrease in the stocks of wild animals remaining, that the figures would be startling in the extreme.

Returning recently from eighteen months in the Far East, which included long tours in Burma proper, the Southern and Northern Shan States, the 'Tribal' and 'Backward' areas, Manipur and Assam, and a special inspection of the Kahilu Rhinoceros Sanctuary in Lower Burma, my attention was drawn to a letter from Mr. A. W. Moodie, Chief Conservator of Forests, Burma, in June in at least two magazines. The letter calls attention to certain articles in the Press during the past two years, which deplored the inadequacy of measures for Wild Life Preservation in Burma. Mr. Moodie commends to those interested in the subject the Annual Reports of the Game Warden, which reports, he infers, should dispel any doubt as to the efficacy of such measures.

In further support of his contentions that these measures are adequate, Mr. Moodie gives details of the sanctuaries set apart in Burma for the purpose, and emphasizes that 'a whole-time' Game Warden is in charge of this work. Incidentally he points out that the Reports may be obtained at the offices of the High Commissioner for India in Aldwych, or through any bookseller. Inquiry at the offices mentioned, elicited the information that no Reports of the Game Warden, Burma had been received since 1935-36. Of a number of booksellers visited, none knew anything of a later report and the office of the King's Printer in Kingsway was equally ignorant. I have, however, beside me, a copy of the 1935-36 Report and a condensed copy of the Report for 1938, published in the *Rangoon Times* on January 21, 1939. The quotations which I use below are from these two sources, and they do not support Mr. Moodie's views.

With some claim to a knowledge of the subject, it is, in my opinion, important at this time that the present position should not be glossed over; to pose that everything in the garden is lovely in Burma's measures for wild life preservation would be fatal. In reality, as I attempt to show below, the reverse is the case, the garden is choked with weeds, and until more drastic efforts





Photo: D'Arcy Weatherbe.

Thamin or Brow-antlered Deer (*Rucervus thamin* Thos.).

A fast disappearing species in Burma.



are made to save species, now in immediate danger of extinction, agitation for reforms must not be slackened, and the necessity for criticism of the apathy that pervades must not be forgotten.

As one who is keenly interested in the conservation of wild life, who has given the greater part of his time during the past ten years or more in visiting and living in the great game areas of the world, in studying the question from a practical angle, and who at intervals has travelled widely in Burma during the past eighteen years, I cannot share Mr. Moodie's complacency. I am, in fact, surprised that one who should be conversant with the real conditions has adopted a view which so many of the facts contradict.

If the Chief Conservator's letter is merely a defence of his Game Warden and his administration it is intelligible.

Personally I have not the slightest doubt that most of these men have their hearts in their work and have tried with inadequate facilities to carry out what, to some of them at least, must have been a heartbreaking task.

#### BURMA'S WILD LIFE SANCTUARIES.

I would like to draw brief attention to some of the instances that Mr. Moodie cites, rather unfortunately I think, as evidence of the result of adequate measures.

I will not refer in any detail to the show-piece of the Department, the PIDAUNG RESERVE, except to remark that it appears to fulfil its functions. But like all other sanctuaries in Burma it is not under a Trust, and like the other reserves is liable to molestation, or even cancellation, on commercial or political grounds, by the present or future administration. In the Game Preservation Report for 1936, the Game Warden writes:—

' . . . much depends, however, on the formation of a National Trust to take over the administration of sanctuaries . . . It is thought, therefore, that the formation of a National Trust for sanctuaries will be closely bound up with a Wild Life Protection Society, and the formation of a National Trust should be pressed forward with all speed.'

That was written some three years ago by the present Game Warden. Up to the present nothing whatever has been done to bring this about. The Game Warden's recommendation cannot be too strongly endorsed, as the danger of commercial or political exploitation hangs like the Sword of Damocles over these Sanctuaries.

A friend, a former high official and head of a department of the Government of India, in Burma, recently answering a protest of the writer, wrote as follows:—'If they cannot keep their National Parks inviolate in Malaya how can one expect any better behaviour in the case of a popular Government depending on the vote?' How indeed! Wild life have no votes.

He referred, of course, to the recent threat, by the present Administration in Malaya, to violate, for commercial purposes part of the King George V National Park. The attempt was, temporarily at least, frustrated by the matter being brought up strongly



in the House of Commons—but that for the present is another story.

Mr. Moodie writes:—‘THE SHWE-U-DAUNG SANCTUARY was constituted primarily for the protection of the Sumatran Rhinoceros, but it also contains a good stock of elephant, bison, saing, sambhur, serow, barking deer, tiger, leopard, bear, pig and birds.’

In the condensed Game Warden’s Report for 1938, mentioned above, the Game Warden is quoted:—‘The Principal Forest Officer estimates *at least five* rhino in the Sanctuary but *no young* . . . it is a very dangerous probability that young rhino are being killed off by tigers.’ No mention is made of any other animals in the Sanctuary except sambhur, tiger and pig. ‘Sambhur were reported to be less numerous.’ The Game Warden mentioned that steps were being taken to *reduce* the number of tigers. In the Divisional Forest Officer’s Report for 1936, though he saw sambhur he writes that ‘no other animals were seen’, and in several visits by the Principal Forest Officer and at least two other Forest Officers no mention is recorded of bison, saing or serau. The Divisional Forest Officer reports that poaching undoubtedly takes place in the western side of this Sanctuary, which the Game Warden had apparently not visited in 1938. Not a very inspiring outlook?

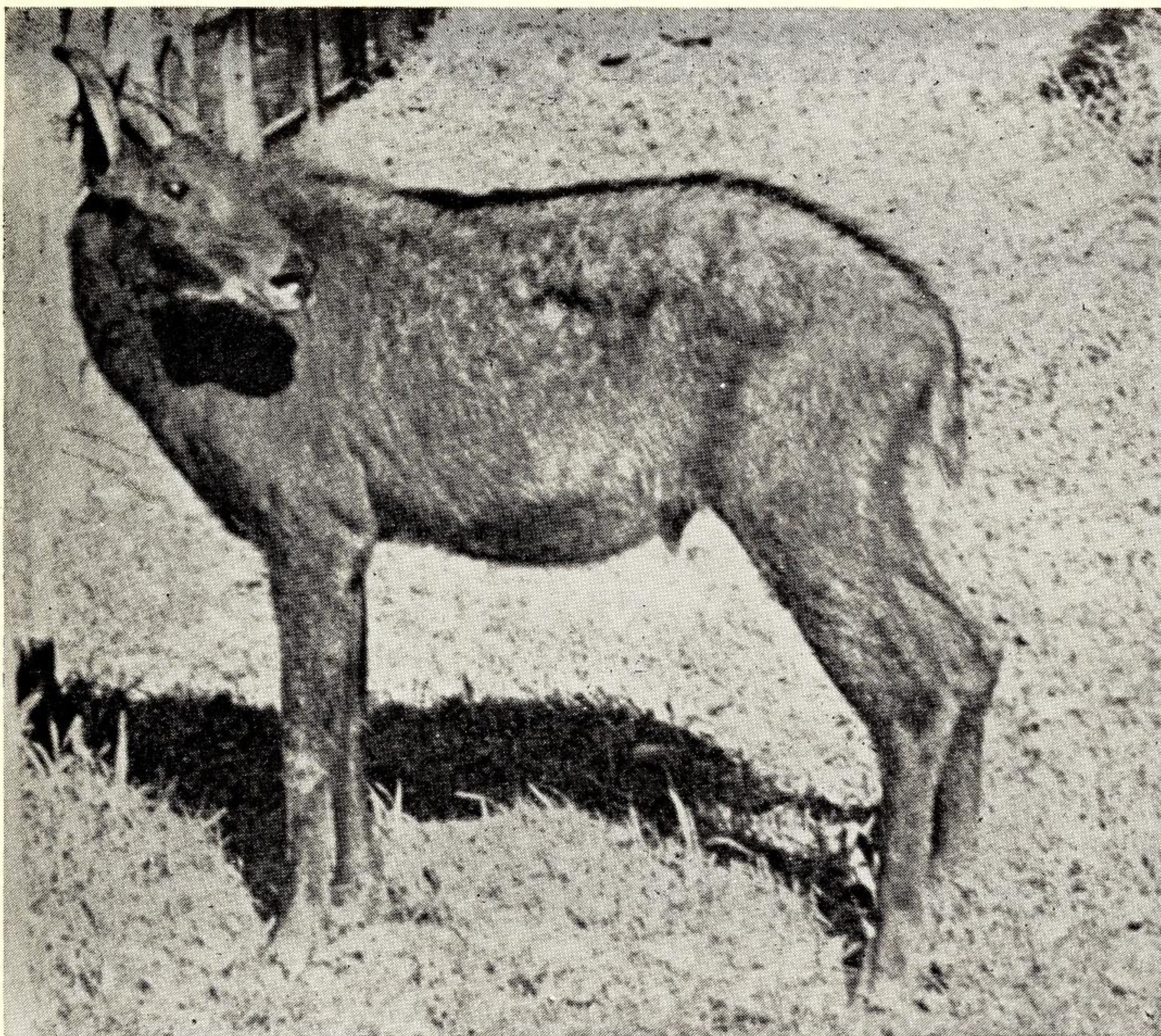
Of the Kahilu Sanctuary, the Chief Conservator writes:—‘Contains a few specimens of Rhinoceros which are, according to all *available evidence*, the Javan Rhinoceros. It also contains sambhur, barking deer, bison, pig and game birds.’ The underlining is mine.

It is quite incorrect to say that *all* available evidence shows these rhino to be *Rhinoceros sondaicus*. The writer visited and carefully inspected this Sanctuary in 1938 with the special object of trying to gather evidence as to the identity of the rhinoceroses there. A detailed report of this visit was submitted to the Forest Department in the same year, and the opinion was expressed that the identity of species of the specimens there was not definitely proved. This opinion took into account all evidence both pro and con which had been gathered up to that date and has been concurred in by at least two well-known experts on the subject, one of whom goes so far as to say that he did not think the animals there were of the Javan species and that the photographs of the tracks were almost positively of *sumatranus*.

In the same report I expressed the opinion that measures for the proper conservation and propagation of the few rhinoceroses there, whichever of the two species they may be, are totally lacking.

Regarding bison. So far as I could gather, they do not inhabit the Sanctuary, seldom visit it, and are rare in these parts. I saw tracks in two places only, probably of the same animal. Sambhur are not plentiful and game birds scarce, and as all game may be legally killed by villagers, on the pretext of necessity for crop protection, and as villagers live in the Sanctuary and have dogs and guns, it is morally certain that birds and small game are regularly poached. At least one Forest Officer has advocated that the natives be allowed to kill pigs without licences, though the





Serow (*Capricornis sumatrensis*).

Another animal which should be carefully conserved.



two rangers in the Sanctuary would be available for such protection if it was really necessary. Also it is absurd that constant cultivation should be practised in a 'sanctuary'. As my report on this area has appeared elsewhere (*B.N.H.S's Journal*, 1939) it is unnecessary to enlarge further on its deficiencies as a sanctuary.

Of the other sanctuaries, most of which are quite unimportant from the point of view of saving the fauna of the country, I will only comment on Mr. Moodie's reference to the MULAYIT SANCTUARY. He writes in *The Field* as follows:—'It contains chiefly bison, serow and mouse deer.' In the case of all of these sanctuaries to mention species particularly, one would be led to believe that they contained at least a fair and not easily exhaustible breeding stock of the animals for which they were set aside? Of this Sanctuary, the MULAYIT, however, the Game Warden writes in his report for 1938:—'The report of a subordinate, *specially deputed* to compile an estimate of the stock of wild animals here, is most disappointing. *No traces of any big-game animals were seen.* Wild dogs were the only animals encountered.'

#### SHAN STATES.

Referring to these States the Game Warden's report for 1938 says:—'Legislation to provide protection would be almost valueless, considering the vast area of unclassed forest and the small number of Forest subordinates available.' And again:—'The Divisional Forest Officer, Northern Shan States, reports that jungle fowl appear to become scarcer every year,' and he adds 'it is not surprising in view of the energy with which local villagers hunt them down, wherever they are found, and so-called sportsmen cannot be said to be blameless in this matter. He might have truly said, further, that they are destroyed in and out of season equally relentlessly.'

In another place, referring to proposals for improvement of protective measures the Game Warden's report says:—'The Principal Forest Officer (Shan States) writes . . . one great stumbling block will always exist, however, in the number of guns licensed as there seems to be no hope of their reduction to anything approaching reasonable numbers.'

Well might he complain for, incredible as it may seem, the official number of licences for guns issued in the Shan States alone, to say nothing of the rest of Burma, was over 27,000. Without the strongest protective measures, what chance has wild life of survival under such conditions?

In the 1936 report, the Game Warden wrote:—'Throughout the Shan States a large number of offences against the Game Rules must be committed annually, but, with the very limited forest staff available, it is impossible to detect the majority of these offences,' and, in another paragraph of the same report we find:—'The Divisional Forest Officer, MONGMIT DIVISION, reports that saing have been severely depleted by epidemic, especially in NAUHLIANG RESERVE. This is most unfortunate, as the NAUHLIANG RESERVE and the surrounding unclassed forests used to be well stocked with these animals.'



No mention of investigations as to cause or possible amelioration is made, but presumably that would be impossible without increased staff or the calling on Government veterinary officers or other skilled advice.

After a recent tour in the Northern and Southern Shan States, covering in all upwards of 800 miles, the writer's impression was that over a great portion of the whole area most of the larger fauna may be considered as practically extinct.

There may be, however, extensive tracts more sparsely settled, where strict protective measures might still produce favourable results. If such measures are not instituted promptly, the first-mentioned condition will maintain over the whole area.

A glance at the financial figures for the Shan States for 1934-5-6,—I have no figures for 1938—will make serious consideration of any protection in the region appear farcical. The revenue for 1934-5 from wild life was Rs. 832 and in 1935-6 was Rs. 710, while for the same respective periods the expenditure was Rs. 70 and Rs. 25, the equivalent of £5-3-0 and £2-0-0. It might be of interest to know on what these sums were expended.

Many more instances of the admittedly unsatisfactory state of Wild Life Protection in Burma generally might be quoted, were it necessary; but a summary of the specific causes of such unsatisfactory conditions with a few notes thereon will suffice.

#### INSUFFICIENT PROVISION OF FUNDS.

This is the primary cause and the one that must be remedied before any further reforms need be considered.

Although destructive criticism may correctly analyse and call attention to ills it may not be very useful unless practical remedial suggestions are also given.

In Burma's case it may be thought that it is too late. That is a defeatist policy and not one to which I can subscribe. With regard to some of the fauna, determined and drastic measures may be necessary. Notably amongst species possibly doomed to early extinction in Burma is the Rhinoceros, followed by the Thamin deer. In the latter case the quick and efficient development and administration of the sanctuaries now proposed for its survival may save it as a species. Outside these areas it will not last long under present conditions. In some districts where they formerly existed large bovines, bison and saing, are already extinct; in other districts they are fast becoming so; while in the Pidaung Reserve it is refreshing to note that so long as it is maintained as at present, *including its necessary extensions*, these two species should flourish there.

It is curious to note that the one species naturally maintaining its existence in Burma is the very one that is now threatened by official slaughter at the hands of those selected to support its preservation. I refer of course to the Elephant and 'Elephant Control'. I hope to have more to say on this question elsewhere.

Now I think that I can indicate where funds should come from and logically show how and why certain revenues should be allocated for the work of conservation.



In the summarized extracts of the Game Warden's Reports for 1938, now before me, no figures of revenue and expenditure are available, but for comparison I have used the figures for 1935 and 1936. They are enlightening, though insufficient in detail.

Under Wild Life Protection the figures are as follows:—

|             |     |     | 1935<br>Rs. | 1936<br>Rs. |
|-------------|-----|-----|-------------|-------------|
| Revenue     | ... | ... | 38,189      | 38,758      |
| Expenditure | ... | ... | 3,445       | 10,350      |

In the last figure for expenditure the 'Elephant Control' figures are not included, while the sum of Rs. 1,211 is not included in the revenue, the proceeds from fines.

But the most important omission is the revenue from licences and import duties on sporting arms and ammunition, which the Game Warden roughly estimates as another lakh of rupees. (Rs. 100,000).

It is not stated whether fees for export permits on trophies and wild life specimens are included but with a properly organized Game Department there is little doubt that on the present figures an approximate revenue from Wild Life Resources would amount to perhaps Rs. 150,000, which should be made available for conservation.

From what I have written above it must be obvious that without reforms and funds it is a matter of time only when no further expenditure on Wild Life Protection will be required—there will be nothing to protect.

Judging by the past, the period before we reach that condition will be short indeed, but before reaching it the revenue from wild life resources will also have disappeared. These implications are simple but will they be believed? The first question to be asked is:—Would a properly organized and independent department, with sufficient funds at its disposal, be able to save the majority of species holding their own and possibly resuscitate others now in danger? I think so, if present conditions are not allowed to drag on, and reforms *completed* within a couple of years at the most, though a few changes should be made immediately.

Outside the sanctuaries matters are in a critical state; inside them, bar the Pidaung Reserve, most unsatisfactory. If the Government of Burma are not satisfied that conditions are as represented above, then let them appoint an expert, but completely independent commission to inquire into the whole subject. Official findings, however disinterested, will never secure the complete confidence of the outside world. Let the work of inquiry be as competent and thorough as was that of the Wild Life Commission in Malaya, but for the sake of Wild Life Conservation, and for the reputation of the Burma Government, do not let the recommendations be ignored and wasted as were those in Malaya.

The above facts summarized are as follows:—

(a) There is an annual income from Wild Life Resources now being collected in Burma amounting to between Rs. 100,000 and 150,000.



(b) This income is derived solely through the existence of Wild Life.

(c) Wild Life is diminishing rapidly. Long before it is actually finished the greater part of the income from these resources will cease.

(d) The Wild Life, or a considerable portion of it, it is thought, if adequate measures are taken now, can be saved, and the income maintained. To do this the greater part of the income must be expended for the purpose to which it obviously belongs.

This principle is well recognized in countries that have looked the question in the face and successfully tackled it.

The reasons why the Burma Government has not done so must be put down to ignorance, disbelief or apathy, and the greatest of these is apathy.

AN UNSCIENTIFIC AND COMPROMISING SYSTEM FORMING THE  
PRESENT MACHINERY FOR THE ADMINISTRATION OF THE  
GAME LAWS AND OTHER MEASURES FOR WILD LIFE  
PROTECTION.

This heading refers to the fact that the administration at present is entirely under the Forest Department.

This antiquated system is a relic of the Government of India's jurisdiction over Burma during which the greater part of the wild life of both India and Burma has disappeared, and though this, perhaps, may be partly due to parsimony, until quite recently it was due to indifference to and lack of knowledge by the Forest Department of that branch of its work.

One of the chief reasons for the employment of the Forest Department for the protection of wild life was economy and, judging by results, a false economy; if we are to agree that the same serious considerations are to be given to this national possession as to others more definitely commercial.

The work of the Forest Department is essentially utilitarian and commercial. Where its immediate objects may conflict with the principles and practice of wild life protection, and they may so conflict in a number of cases, the interests of the former would prevail.

The use of the Forest Department is a makeshift, and its personnel, *per se*, is little if any better fitted for the duties of wild life protection than are members of a number of other departments. In practice a number of Forest Officers are shooting men, but that in itself is not necessarily a qualification. It may be, I regret to say, and in some instances I have known it was, a detriment. Many Forest Officers have not, as might well be expected, any interest either in destruction or preservation of wild life. Such men may be, and upon occasions are, in charge of critical areas, in which are situated sanctuaries requiring special attention. Their attitude would naturally be one of indifference. To such men a voluntary policy of vigorous apprehension or prosecution of offenders could hardly be expected, even if they were allowed to spend their time on such duties.



On principle I think that the term 'whole-time' Game Warden a misnomer, when applied to Forest Officers transferred temporarily to this position. I believe I am correct in saying that since the first Game Warden was seconded from that service some eleven years ago, there have been four incumbents, but for four years of that time there was no official Game Warden at all. One of these officers has acted in that position in an honorary capacity *in addition to his official duties*.

The position is not altogether independent, and is not looked upon either as a career or as a permanent occupation. When promotion comes, and perhaps before, for one reason or another, the Game Warden reverts to his position as Conservator or whatever it may be in the Forest Department. If on leave another Forest Officer is temporarily appointed as Game Warden, but whether in addition to his other duties or not, I do not know. During his tenure of office a Game Warden has not control of other officers of his department who are supposed to be assisting him in duties. They are under their own departmental chiefs and naturally their routine forest duties have first call on their time. The Game Warden cannot give them orders at all.

The Chief Conservator of Forests is Head of the Department administering preservation of wild life; but he has not reached the position of Chief Conservator through any special qualifications for that branch of his department's work and might not, in fact, have the slightest interest in or knowledge of the subject. It is he, however, who is responsible, and who has to deal with the appropriate Ministry—a most important function.

The Art of Conservation of Wild Life cannot be picked up in one's spare time.

There can hardly be two opinions but that the Wild Life Protection Departments of countries of the Empire, like India, Burma and Malaya, should be entirely divorced and separated from any other department, and while in every way gratefully accepting co-operation and assistance, a completely independent department must be responsible for the work of Conservation.

The Director of such a department should be a man of suitable age and selected for his technical ability for, and experience in, practical wild life conservation, as well as his disinterested keenness in the work. In Burma, it is probable that such a man might be available from the Forest Department Service, could he be transferred from that department. But a separate department must be formed if success is to be obtained. We have sufficient proof of the failure of the present system.

#### SHORTAGE IN THE NUMBER OF GAME WARDENS, GAME RANGERS, WATCHERS, GUARDIANS, ETC.

At present there is only one Game Warden and whether he is 'whole-time' or not, it is physically impossible for him to properly visit or supervise his vast area in the six months season of the 'cold weather' during which time it is customary, and in some cases only possible, to travel in Burma.

It is a vast territory of forests, jungles, rivers, swamps and



mountains, sparsely traversed by roads or railways; and travelling off the beaten track is slow and arduous.

The area under the Game Warden, which contains some six sanctuaries, stretches north and south a thousand miles from above Myitkyina to Victoria Point, and from the China Border on the east to the Bay of Bengal and Assam on the west.

The Game Warden writes:—‘In almost every Forest Division the Divisional Forest Officer admits that sufficient attention to wild life preservation cannot be given by the existing staff.’ He further points out that during the year, while some 15,000 licences for sporting fire-arms were taken out, exclusive of the Shan States, only 721 of these licensees took out game licences. The inference is obvious. Further he writes:—‘When it is realized that there are 31,300 square miles of Reserved Forests to which all of the Game Laws apply, and 92,000 square miles of Unclassed Forests to which many of the Game laws apply, the difficulty of controlling the activity of poachers with a limited staff can be appreciated.’

The Conservator of Forests in Sittang Circle who was the first Game Warden, and who afterwards acted in an honorary capacity, is quoted by the present Game Warden, in the 1938 report, as follows:—

Referring to South Toungoo and Pegu Divisions: ‘In both these Divisions during the hot weather all the available staff is moved from the hill forests down to the plains in order to cope with the annually increasing amount of (forest) work . . . the area in both these Divisions where game is most plentiful, or rather least scarce, are therefore left almost entirely unprotected during the period of the year in which protection is most needed.’

At the very minimum an additional two or three Game Wardens are urgently needed, whose duties should be in the field and not in an office, and who should be almost constantly touring the areas allotted to them. Although co-operation should maintain, as at present, with Forest Officers and subordinates in the field, a very much larger staff of permanently employed game rangers and other natives should be employed, and these should be under constant supervision of the Game Wardens. Watchers and others, who would be sources of information, in towns and villages, markets and fairs, should be regularly employed, and the police should be instructed to co-operate with them.

Honorary Game Wardens should be appointed wherever keen men could be induced to act, more especially in the game bird districts, where their assistance should prove invaluable.

There are, I feel sure from my own experience, many good sportsmen who would willingly act in this capacity. This branch of the conservation service is of great use in East Africa and it also was used in Malaya.

LACK OF COMPREHENSIVE, CONSISTENT AND PRACTICAL  
LAWS TO EMBRACE THE CONSERVATION OF WILD LIFE IN  
ALL ITS PHASES.

A law which would ensure facile provision for prompt legal apprehension, prosecution and punishment of all offenders against



its provisions giving, at the same time, wide powers to the Game Warden to enable him to carry out his work without irksome and time-wasting references, would go a long way to solve the problem which confronts wise conservation of wild life in Burma.

No such law is on the statute book in Burma today. Protection of Wild Life was embodied in the Forest Department Act, in the Burma Game Rules published under that Act, and in the Wild Birds and Animals Protection Act.

An attempt was made to better these provisions, and nearly three years ago a new act was drafted and called the 'Burma Wild Life Protection Bill, 1936.' At that time Burma was a Province of India, but before the draft with its rules was finally finished the inauguration of the new Burma Government became imminent. This draft was a move in the right direction and its promoters deserve considerable credit for what they achieved. It does not, however, fulfil the requirements of a complete law on the subject. Besides being inadequate it is in some respects inconsistent, and in one ludicrous. The provisions regarding rhinoceros prohibit the killing of the animal. In another clause, however, its blood may be legally sold by native medicine men and others though there is no special provision for killing it or importing it for this or any other purpose, except that there is one clause allowing the animal to be killed in protection of crops.

In fairness I should say that it was reliably stated to me that the reason it was submitted in this form was the urgency of getting it approved before the new and independent Legislature took office, as if not already approved the act might have been indefinitely delayed or not passed at all.

While I leave the reader to judge the value of this excuse, I would point out that the Rules for the Act had not been passed up to March 1938. So the Game Rules of 1927 are still being followed where they do not conflict with the provisions of the new Act.

#### THE INORDINATE ISSUE OF GUN LICENCES FOR ALL SORTS OF UNNECESSARY REASONS.

Although<sup>1</sup> the country is not at war there are over forty thousand licences issued for guns! For what purpose? These guns are not given to the police or to the armed forces, but to ordinary citizens. Such conditions are unknown elsewhere in the Empire. The populace should be disarmed and fire-arms only issued with the strictest supervision, and only for *bona fide* sporting purposes, and *in conjunction with game licences*, issued and renewable annually by the Game Warden alone.

---

<sup>1</sup> Written before outbreak of war.



THE COLLECTION, SALE AND EXPORT OF WILD ANIMALS  
FOR COMMERCIAL PURPOSES.

This nefarious practice goes on, I believe, to a far greater extent than is perhaps supposed, and often upon the false plea that the animals are collected for scientific purposes. No animal should be captured or exported, except by special permit signed by the Game Warden himself, after the strictest inquiries as to the purpose. Co-operation of the police at all ports and elsewhere, to prevent the harbouring of wild animals or birds without permit, should be freely given, as also the good offices of the Customs Department to prevent illegal export. The lack of control is referred to in the Game Warden's Report for 1938.

His Majesty's Government has, I believe, on a number of occasions, through various Ministers, and through at least one Prime Minister, clearly enunciated that preservation of the wild fauna of the Empire was a policy that had its firmest support.

If, therefore, the suggestions I have made above fail with the Burma Government and with the Governor, then in that last resort persistent appeal must be carried to London. But through what organized channel is this appeal to be made? That is the difficulty.

In my view, though it is a depressing admission, until public opinion becomes sufficiently interested in the subject, none exists to-day that has practical influence.