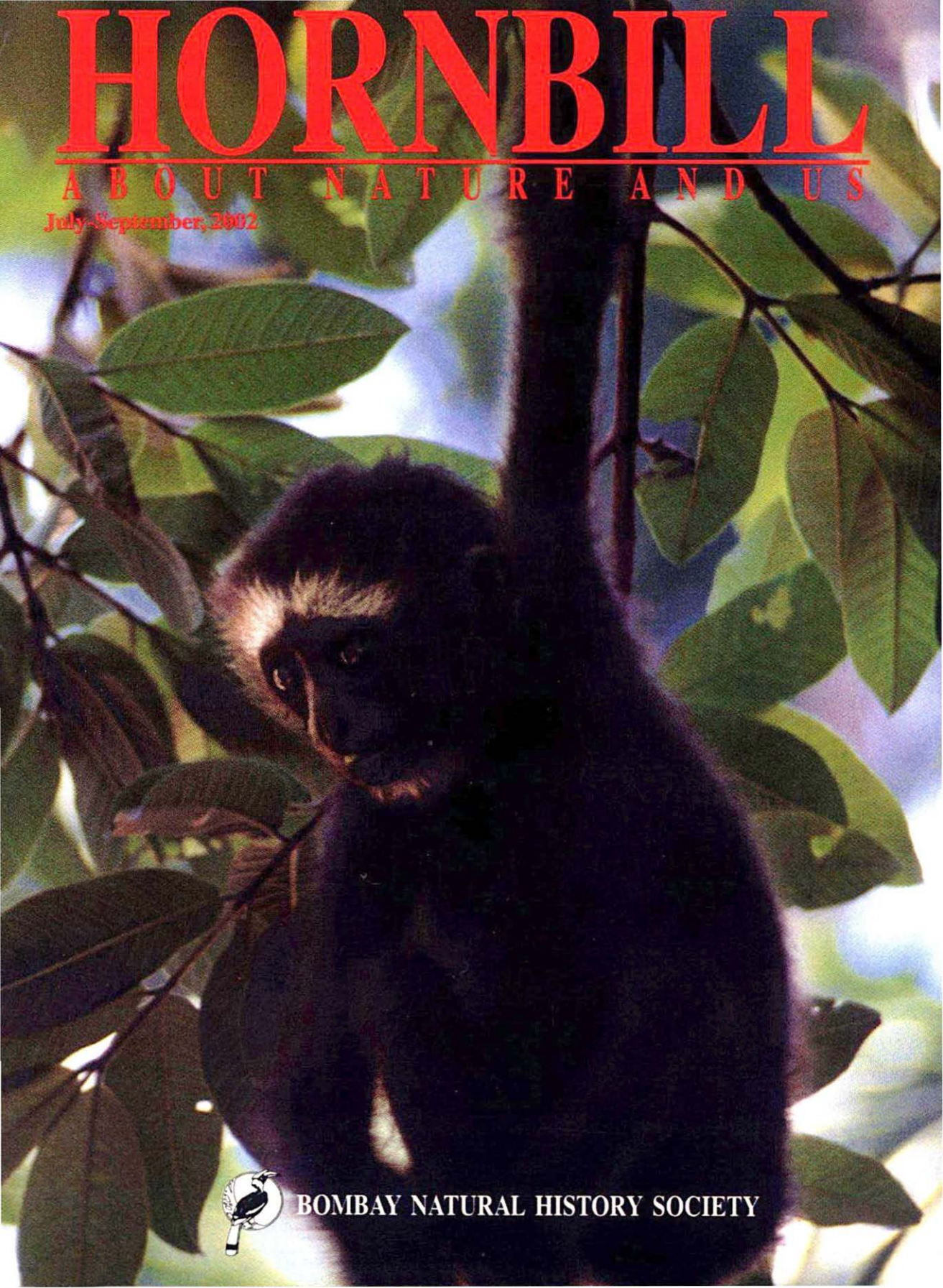
HORNBILL

ABOUT NATURE AND US

July-September, 2002



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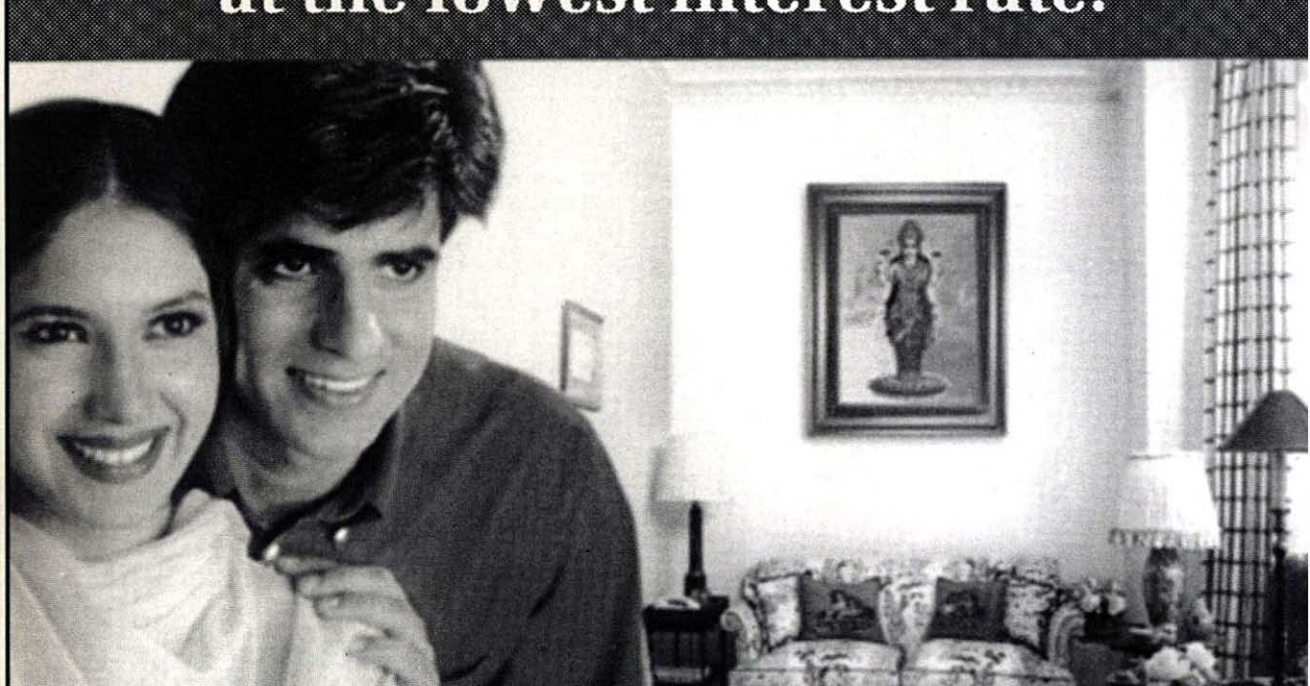

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HORNBILL
July-September, 2002

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White-browed or Hoolock Gibbon

Charles McCann, F.L.S.
Paintings: Paul Barruel, © BNHS

McCann joined the Bombay Natural History Society as a field collector of the Mammal Survey in 1927. He soon became Asst. Curator and was Joint Curator and one of the editors of the *Journal* at the time of his retirement in 1947.

In January 1930, I was sent on special duty to collect material for a gibbon group on behalf of the American Museum of Natural History, New York. The Naga Hills were selected as a suitable venue for the expedition. An artist, a modeller and myself composed the members of the expedition. Our camp was situated at a place called Changchang Pani (*Changchang Tsu*), twelve miles from Nakachari Railway Station. Changchang Pani is situated at an elevation of 500 ft above sea level, with the hills of Lakhuni rising to about 2,000 ft near by. It is on the 'high road' between Nakachari and Mokakchang, and is the halting place for the Nagas on their way to and from their *busties* in the interior. The hills are covered with dense evergreen forest with barely any footpaths through them. In consequence, one's movements are restricted to the watercourses. Bamboo is the predominant species — a species with a very hollow stem.

This expedition offered me a splendid opportunity for observing the white-browed gibbon in its natural environment. At Changchang Pani, I spent nearly two months doing little else but observing these animals. The forests were literally teeming with gibbons, which could be heard on all sides. But owing to the dense nature of the jungle, they were not always easy to get at. By careful stalking, I was successful in obtaining the specimens required and also in observing their habits. The gibbons were not always very shy, but owing to constant persecution by some of the Nagas for food, they were rather suspicious of one's movements. I spent much time with glasses trying to study their ways. My observations, which I detail below, it will be observed, are not always in agreement with the observations of other naturalists. It is possible that many recorded observations of the habits of these animals have arisen from statements made by natives. Long experience has convinced me, if conviction is necessary, that statements of natives are frequently wrong. Not that the folk tell the story with the idea of deceiving, but they often let their imagination and superstitious beliefs obscure the true facts. The story is usually based on certain facts, which need careful analysis, and this is pardonable in ignorant folk. How much more aggravating is it to listen to educated people who in all seriousness glory in narrating stories after the manner of 'Col. Longbow'.

It has been generally understood that both the males and the females of this gibbon vary in colour from brownish-black to yellowish-grey. As far as my observations go this change of colour, if we exclude the change undergone by the newly-born young, is limited to the female.

The young of this gibbon at birth is a pale greyish-white with a yellowish tinge. The face, the palms of the hands, the soles of the feet are black. As growth proceeds the coat becomes darker and darker, usually with lighter patches around the rump, but finally it gets quite black. Both sexes pass through this change with this important difference. The dark colouring, deepening with age to glossy black, is retained by the males through life; in the case of the female a second change is undergone when she reaches puberty. Her black fur fades gradually to the light yellowish-brown phase referred to frequently by various authors.

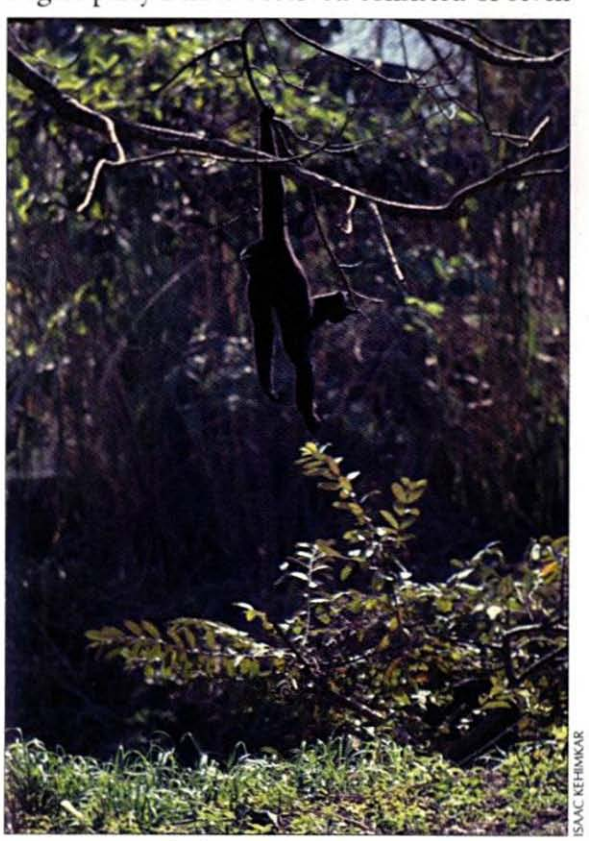
The change from the greyish-white of the new-born gibbon to the dark colouring exhibited in the juvenile stage makes it particularly difficult to see whether a female has a young one at her breast or not. Though the dorsal fur of the mother is pale, the brown skin of her ventral surface, sparsely clad with hair, harmonises with the dusky colouring of the baby gibbon at her breast.

In my opinion, this gibbon has a definite breeding season, which is during the cold weather. Almost every mature female I came across between January and early March was with a baby, clearly indicating that the maximum birth rate is during the cold season. The young appear to be born between November and February.

As indicated above, the young when born is almost white with a yellowish tinge. As far as I was able to observe, it clings to its mother always with one teat of the parent in the mouth, even when she is swinging about in the branches. When born, the young is without teeth, but soon after it gets a full complement of 24 milk teeth. The second set of teeth appears between the age of eight or nine months (this observation I conclude from the specimen that I had in captivity). The permanent teeth appear slowly and very irregularly — the incisors are the first to appear. My specimen was about a month old when I got her in February 1930. In September of the same year, the permanent teeth began to appear. At the time of her death in November, 1931, not all the permanent teeth had appeared.

The colour of the baby I had in captivity, when I first secured her, was dusky with lighter patches around the callosities. She gradually became darker and darker in tone. At the time of her death she was almost quite black, but still retained the lighter patches around the callosities. There were also a few light-coloured hairs in the beard. The white brows were very conspicuous — from birth this point is very prominent. The callosities are not very evident and are usually covered over by the surrounding hair. This condition also prevails with the adults.

With regard to their habits, Blanford writes:- "Like most other gibbons the Hoolock is found associating in flocks, often comprising from fifty to a hundred individuals, or even more. An old male, however, is occasionally found solitary." This is yet another point on which my observations differ. These apes are at the best of times difficult to see when they are in dense forests, and the din created by a party of them, which is soon taken up by another party near by, and so carried through the jungle, often does give one the impression that there is a very large number of them together. This was also my opinion when I first made their acquaintance when I was in Assam in 1918, but at that time I did not see many of them. Different parties will meet within reasonable distance without molesting one another, but this is no evidence that they all belong to the same party. I have found that the Hoolock goes about in small family parties, usually consisting of an adult male and female with young of different ages, the youngest sticking to the breast of the mother. The largest party I have observed consisted of seven



ISAAC KEHIMKAR

Hoolocks cover great distances by swinging from branch to branch

ANWARUDDIN CHOUDHURY

The yellowish-grey coat of the young deepens to a glossy black with age, but its white brows, from which its name was derived, is conspicuous right from birth

individuals, an adult male and female and five young ones, the youngest of which was clinging to the mother's breast. Mackenzie, who collected specimens of this species for the Mammal Survey of India, writes, "It is generally found in parties of three or four, but I have seen single ones, and once a party of six" (*JBNHS*, xxiv, p. 762). Wells notes:- "The Mishmis say that there are only three parties of these gibbons, each about ten or twelve in number, in the Dening District" (*JBNHS*, xxxi, p. 385). This statement is based on hearsay, but is more in accordance with the true habit of the animals than the statement by Blanford.

Zuckerman in his work entitled THE SOCIAL LIFE OF MONKEYS AND APES, p. 23, writing in reference to the Lar gibbon, (*H. lar*) says, "The Lar gibbon, one of the lesser apes, is unanimously reported to live in small family parties, while the Hoolock gibbon, is found only in large troops." Further on, p. 180, the same author quotes Kloss, "The statement that gibbons are monogamous is one that I thoroughly agree with: whether, however, they divorce each other and take new partners from time to time we have yet to learn. The point is interesting, since such an able reasoner as Westermarck has come to the conclusion that the marriages of mankind are an inheritance from some ape-like progenitor." I am also inclined to the belief that the Hoolock is monogamous. The reason for this belief is based on the fact that a pair of adults is always found together with their young of the present and preceding years, a single baby being born each year. It appears strange that so closely related gibbons should have such different social habits. It seems to be well established that the Lar gibbon lives in family parties, and my own observations convince me that the Hoolock has also the same habit of living in family parties.

Frequently a male may be seen feeding alone, but somewhere in the offing the family is out of sight. On one occasion, I came across a 'solitary' male feeding on the flowers of silk cotton tree (*Bombax malabaricum*), so I watched his movements unnoticed. After a short while he gave a low call, which was soon followed by the appearance of a female and her young ones (two in number) and they also commenced feeding on the flowers. On another occasion, I came across a solitary female, which was completely fawn coloured. There were no others in the neighbourhood and of this I made certain. Judging from this case, it appears that when a female has reached maturity and has completely changed from the black to the fawn phase she is either driven out of the family or leaves it of her own accord in search of a mate, however, this point is open to question.

It appears to me that the family tie is exceptionally strong with these animals; which I conclude from the following facts. One day I came across a small party of three, consisting of one adult male, one partially grown young one and a baby about four (?) months old. All were black and both the large ones were males. The baby was clinging to the older one as though it were its mother. The baby was a female. I searched the neighbourhood to see if there was a light-coloured

female about, but without success. This incident goes to confirm the Naga belief that in the event of the death of the mother, the other members of the family help to look after the baby.

Judging from the number of individuals that go to compose a family, it appears that it must take four to five years or perhaps six years before this gibbon reaches maturity, and in the case of the females, turn light-coloured. After reaching maturity they probably leave the old family party or are turned out of it to fend for themselves.

Gibbons spend the greater part of the day in high trees, but not just the highest except in the case of the trees which afford them food. But during the hottest part of the day they frequently descend into the low tiers of the jungle. During the early hours of the morning gibbons may frequently be seen sunning themselves on the exposed branches of trees. When alarmed, they take refuge in the bamboo clumps and use them as a means of getting away swiftly. They will also take refuge in the foliage at the tops of high trees or hide in the forks of thick branches peeping 'round the corner' when they do so. The speed at which they can cover long distances is surprising. The alarm call is a sharp short rather harsh bark, which may be repeated, but alarm may be expressed by quite another sound, which may be likened to a loud belch which is repeated from time to time.

"The statement that gibbons are monogamous is one that I thoroughly agree with: whether, however, they divorce each other and take new partners from time to time we have yet to learn. The point is interesting, since such an able reasoner as Westermarck has come to the conclusion that the marriages of mankind are an inheritance from some ape-like progenitor."

At about 9 a.m. (local time) they commence their 'joyous' howling which is so characteristic of gibbons. This is kept up till a little before noon and then all is quiet till about four in the evening. In the evening, the howling does not continue for long. The voice is very powerful and may be heard over long distances. To utter this (and every other vocal expression) the lips are used; the lips are brought round in almost the same shape as a person pronouncing an O with a pout. Each time the sound is made it is accompanied with a toss of the head. The call seems to sound like a long 'hooo-oo', by first expelling the breath and the same sound repeated by taking in the breath. In this way, I was able to imitate the sound with a fair degree of accuracy. This cry is repeated several times in the same manner. The 'music' is commenced in a very high key by one of the party (possibly by one of the young ones) and is then taken up by the rest and repeated over and over again. Amid the 'altos', 'sopranos' and 'falsettos' is to be heard the deep bass of the male. The call is taken up by other parties in succession or in concert with the one that started it. Besides the sounds already described, there are a number of other sounds which defy description. When eating, a Hoolock generally makes a belching sound after each mouthful, as though to express satisfaction. A whining noise is also made which is altered in tone to suit the occasion, which may mean displeasure, or is uttered when the animal is pleading for something. These sounds are produced by stretching the lips across the mouth as though it were trying to smile. When angry, the mouth is opened, baring all the teeth in true 'monkey fashion', at the same time staring hard at the object which gave rise to the anger. When irritated, they frequently strike out with their long arms instead of biting, but may also use their hands to pull the object nearer and then inflict a bite.

In the trees their mode of progression is by means of swinging from branch to branch, either with the hands alone, or with the hands and feet, though the former is the commoner practice. They are able to 'drop down considerable distances from

one branch to another and are also capable of making prodigious leaps. But when on a thick bough they walk erect along the top of the branch using the arms as a means of balance and support. It is surprising to see how rapidly they get along among the spiny branches of the *Bombax* as though there were no spines at all.

On the ground they are exceedingly rapid for their small size. They run along quite erect, with the chest thrown forward and the two arms swinging on either side to keep their balance. But, they are not able to travel great distances in this way at one stretch. From time to time, they stop and rest on the back of their wrists, but not on the palms of the hands. On the whole, the gait is most awkward. Gibbons in the dense forests rarely descend to the ground. At Charelli, I have seen gibbons leave the forests and come into the village to feed on the flowers of *Bombax*. As many of the trees were isolated, the gibbons had of necessity to come down to the ground before they were able to get to them.

When sitting and sleeping, they assume most human attitudes. In the wild state, gibbons sleep in a sitting position with the knees drawn up under the chin, the head and face buried between the thighs and the body, in such a way that all the fleshy parts appear to be protected against the attacks of mosquitoes. The specimen I had in captivity frequently slept in a reclining posture particularly when she was very young.

The stomach contents of the animals I secured revealed large quantities of fruit, some of which were eaten almost whole, leaves and flowers, generally too far gone to enable me to identify anything with certainty. The petals, cotton and seeds of the *Bombax* are largely eaten by these apes. Judging from the specimen I had in captivity, they also eat certain insects and spiders. When eating a large fruit they frequently hang from a branch with one hand and use the other three 'hands' for securing and turning it about. The feet are also used for holding things when traveling along a branch to a convenient seat.

Gibbons drink water from the leaves. In the Naga Hills, where the forests are exceedingly humid, and the dew fall very heavy, gibbons may be seen collecting it directly by means of the tongue or with the hand. In captivity, they follow the same procedure. They will also try to lap, only just getting the tongue wet, and in this way it takes them a long time to drink anything. The hand is generally put into the liquid, which is sucked off from the back of the hand.

Judging from the specimen that I had in captivity, they do not excrete during the night, once they have retired, till the next morning. This may possibly be a provision of nature so as not to give away the position of the animal to prowling nocturnal enemies. These animals are exceedingly frightened of the larger birds of prey, and I have no doubt that many of them fall victims, particularly the yearlings, to some of the eagles. Probably pythons also prey on them. The specimen I had evinced great fear of snakes and tiger or panther heads.

A very noticeable point about gibbons is that they do not possess that peculiar odour, which is such a common feature with most monkeys, particularly the macaques.

Blanford rightly remarks that gibbons are easily tamed. When caught young, they make the most delightful pets and become very attached to their master. They are very gentle and good-natured, but at the same time are very sensitive. They do not like to be left alone and should always be given something in the way of a ball or toy to keep them occupied. The face is very intelligent and full of expression. The one I had was always on the move and not at all inclined to be morose. Her greatest delight was to be with the children and she looked forward to going out with them in the evening. In fact, she became so attached to my two boys that she would not allow a stranger to touch them. Under such circumstances, she would invariably nip the outsider. When I first obtained her, I fed her on bananas and condensed milk (fresh milk was not procurable). On this diet she thrived well, but when I got back to civilization I changed her diet to fresh milk and fruit. She refused hard fruits and nuts till she began to get her permanent teeth.

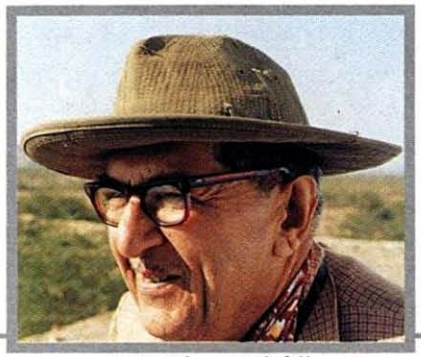
In the cold weather, these animals should be provided with a piece of blanket to cover up with as they are very susceptible to chills in captivity.

AUREUS

A matter of particular pride to the Society is the number of years a member has been associated with it. We have fourteen members of over 50 years standing. This is the second page of gold to felicitate them.

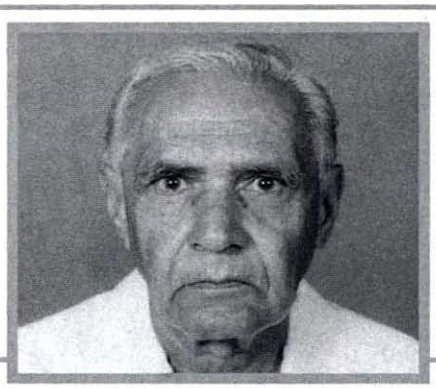
Arvind Narottam Lalbhai
Joined 22nd December, 1947

Arvind Narottam Lalbhai, besides being the Chairman and Managing Director of the Arvind Mills Ltd., is on the Board of Directors of several other companies. He is recognised in the country as a far-sighted businessman. He and his companies fund a number of social, educational, sports, cultural, rural development research and health organizations and institutes.



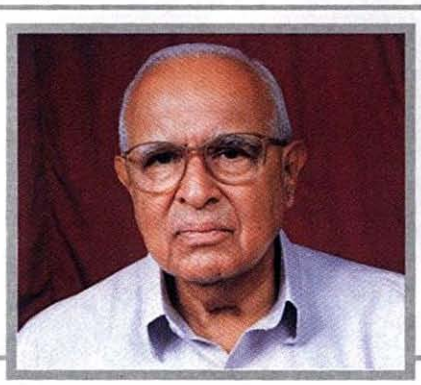
M.K. Himmatsinhji
Joined 29th January, 1952

M.K. Himmatsinhji, a scion of the former House of Kutch, is an authority on the avifauna of Kutch. His association with Dr. Sálim Ali began in 1943-44 during the survey of the region prior to the publication of the 'Birds of Kutch'. Since then, he has been the main source of information for the avifauna of Kutch for the Society. He has contributed several papers and notes to the Society's *Journal*.



Prof. P.V. Bole
Joined 7th November, 1951

Prof. Bole is an ex Head of the Botany Department of St. Xavier's College, Mumbai. He is a well-known taxonomist of international repute and a consulting botanist with some major pharmaceutical companies. He is a member and the chairperson of the Board of Studies, and the Post-graduate Teachers Committee, University of Mumbai. A former President of the BNHS, he has published several papers of immense value.



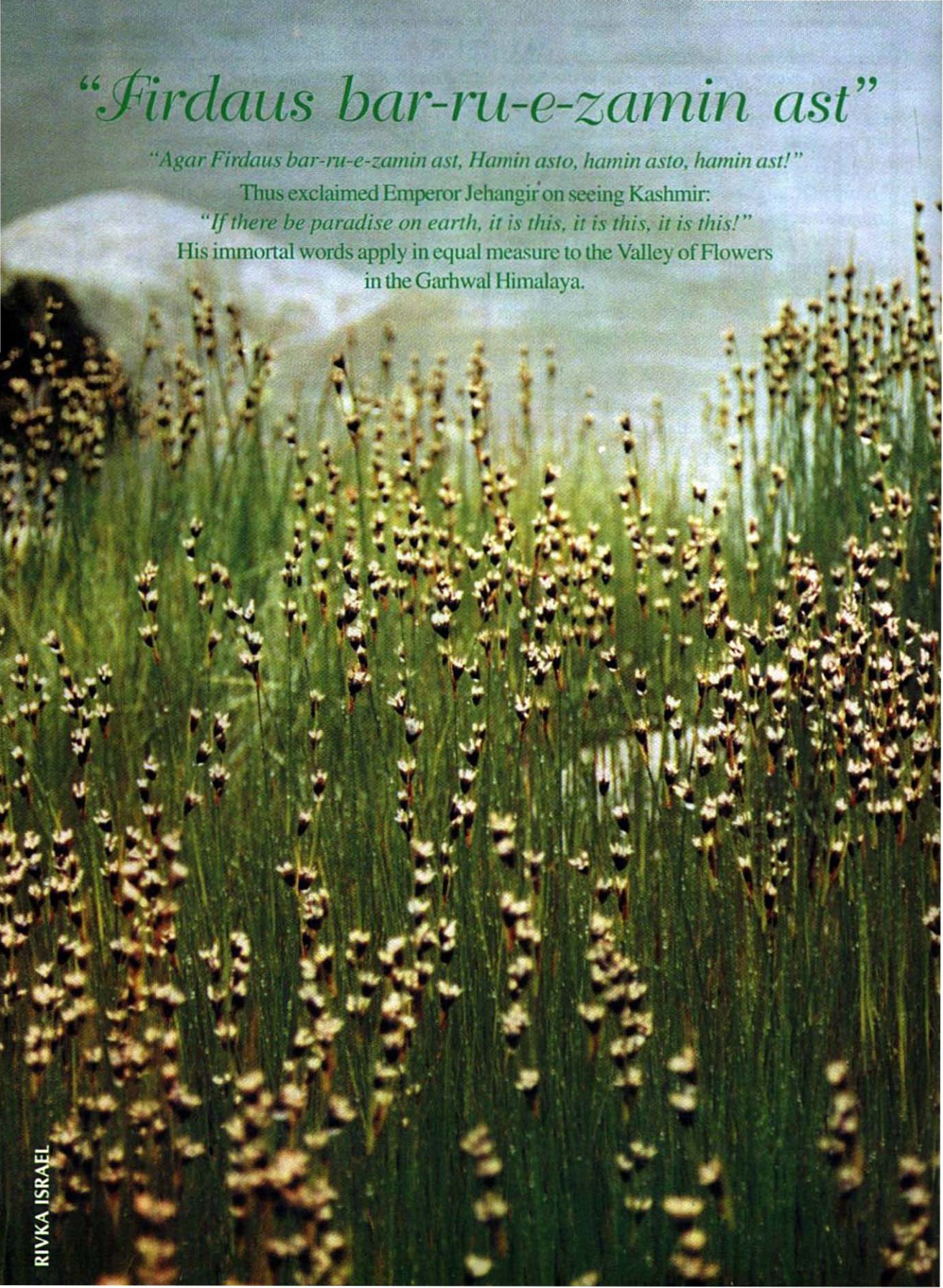
M.S. Digveerendrasinhji
Joined 17th September, 1952

Shri Digveerendrasinhji, the Maharaja of Vansda, is a keen wildlifer and a conservationist who has worked substantially towards the cause of nature conservation in South Gujarat and the adjoining Dangs district for over 40 years. He has published several interesting notes in the Journal of the BNHS.

"Firdaus bar-ru-e-zamin ast"

"Agar Firdaus bar-ru-e-zamin ast, Hamin asto, hamin asto, hamin ast!"

Thus exclaimed Emperor Jehangir on seeing Kashmir:
"If there be paradise on earth, it is this, it is this, it is this!"
His immortal words apply in equal measure to the Valley of Flowers
in the Garhwal Himalaya.



RIVKA ISRAEL

Gayatri W. Ugra

Gayatri W. Ugra studied insect-plant relationships for her Ph. D. She heads the Publications Department, BNHS.

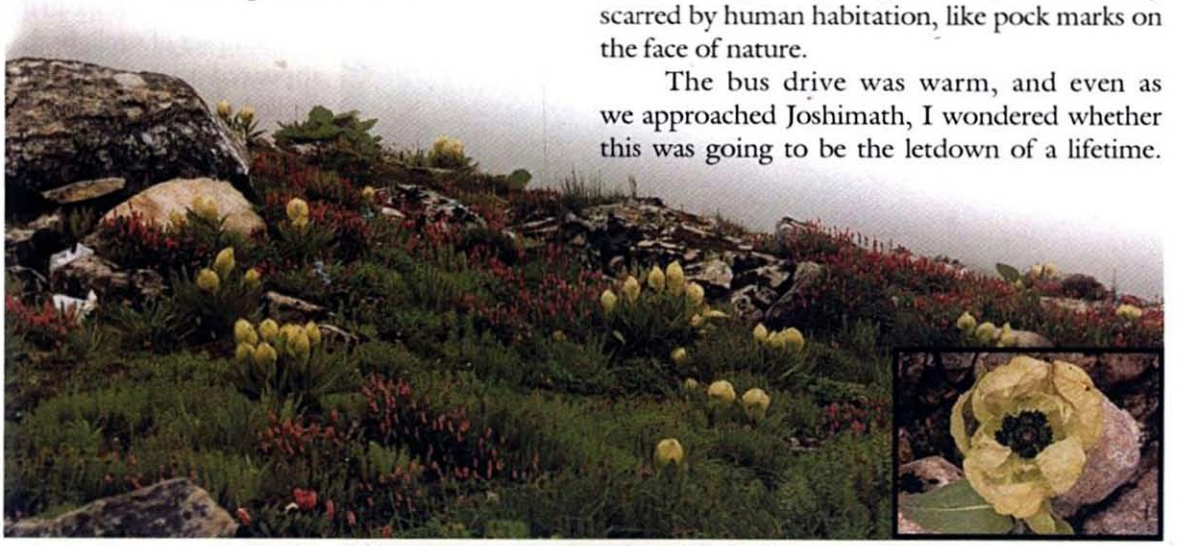
How do I describe a dream come true? Words turn into clichés, and my limited vocabulary fails me completely. There I stood, having crossed the plank bridge over the Pushpavati, and stepped into a world beyond my wildest dreams. I had seen excellent photographs of the Valley of Flowers, but they were as nothing to the panorama before me: mountainsides rising all round, with snow white glaciers, and in their midst, a veritable jungle of flowers, a thousand varieties in all the shades of the rainbow. My friend Rivka and I looked at each other: "Thus far and no further!" and we decided to spend most of our time that day right at that spot which was just 3 km into the Valley. We wandered around, photographing the blossoms, trying hard to etch upon our minds everlasting impressions of the jewels we saw that drizzly, damp, misty day. I climbed down to the pebble-strewn bank of the Pushpavati, turning over the rocks to look for stonefly larvae and caddisworms in their self-made tubular homes of stone and sand. Swallows darted in the air, hawking mayflies, and as I listened in silent tribute to the rushing waters of this tributary of the mighty Ganga, my mind flew back in time, to the first occasion on which I had heard about this paradise on earth.

On a trip to Manali, at just such a stream, Dr. Santokh Singh, who was my research guide, spoke of the Valley of Flowers and its alpine meadows in Chamoli district, today in the newly formed state of Uttaranchal. A hundred plans were made, remade and forgotten, and I became convinced that I would never set eyes on the place. But Mr. P.B. Shekar, whom all BNHS members know so well, always assured me that I'd make it. Finally, this time round, it seemed that I had!

We started off to Delhi on 31st July, and were dogged by problems right from the start! The train was 2 hours late. Accepting a kind offer from Sushma Dhumal, we gratefully took a lift and drove to Rishikesh with her. Haridwar came and went, teeming with noisy pilgrims, dust and monoxide fumes, the ubiquitous Vividh Bharati and itinerant carriers of Ganga water. It was late, and we only made it to Rishikesh by 9 o'clock, heading straight for a hot bath and bed.

The next morning, with the BNHS party, we set out for Joshimath, driving alongside the Alaknanda, a turbulent, treacherous river, notorious for her ever-changing moods. Past the various Prayags, or confluences of the Alaknanda with other tributaries. Devprayag, where the Bhagirathi meets the Alaknanda; Rudraprayag, with a memorable view of the confluence of the gentle Mandakini with the foaming Alaknanda; and other legendary temple towns, unfortunately scarred by human habitation, like pock marks on the face of nature.

The bus drive was warm, and even as we approached Joshimath, I wondered whether this was going to be the letdown of a lifetime.



RIVKA ISRAEL

Brahmakamal *Saussurea obvallata* covered the hillside at Hemkund

We reached at 6 p.m. There were no fans in the otherwise excellent Garhwal Mandal Vikas Nigam guest house, and it was as warm and humid as Mumbai in the closed rooms. What was I in for, I asked myself. But it began to rain, and Joshimath became pleasantly cool. Soon it turned dark, and we called up our families for the last time in the next five days. Beyond Joshimath there are few phone lines, and all communication is limited to walkie talkies in the hands of officialdom. This was just what I wanted: the Great Escape, away from civilization, Mumbai, even Hornbill House!!

GAYATRI W. UGRA

***Senecio* sp. (above) grows in abundance at Ghanghariya which lies near a glacial stream (below)**

On 2nd August, an early start, from Joshimath to Gobindghat by bus, and if the trip had ended right there, I would have been happy enough. A constant drizzle screened the enchanting images of evergreen mountainsides, rocky and remote, that arose from the sides of the Alaknanda and towered hundreds of metres above us. Oak, deodar, pine, yew and spruce trees passed by successively, as the vegetation turned from subtropical to alpine, and the first Himalayan whistling thrush appeared. We reached Gobindghat, beyond which motor traffic does not ply. Our luggage packed on rather sad looking mules (called horses with a happy disregard for biology and truth), we set out on foot to cover the 14 km to Ghanghariya, the base camp. Trekking skills unconsciously imbibed during a Himalayan childhood and youth returned, and came to the rescue of my urban body, which jumps into a bus at the first pretext! We had a tough walk, but also energy enough to enjoy the flowers, rushing waters and the waterfalls that are symbols of all that is inconstant in constancy, with their everchanging cascades of white water.

The morning of 3rd August, and we set off to realise our dream. The path sides were covered with wild strawberries, bright red gems that shone in the few glimpses of sunlight that appeared that day. I was thrilled to spot a Himalayan blue poppy, a single blossom unexpectedly and precariously clinging to an earth bank on the path to the Valley, which I can only describe as a sonnet in blue! Enthusiastic birders like Sushma pointed out the rosefinches twittering among the rhododendrons, white-capped redstarts flicking their tails as they hopped upon the glacier, a solitary lammergeier silhouetted overhead. The Kastura, or Hazaar Daastan (a thousand tales), that is the

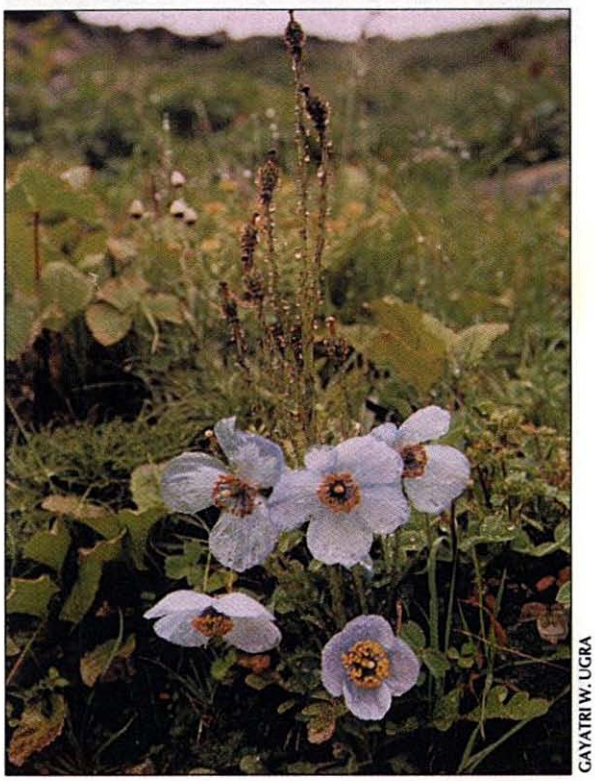
GAYATRI W. UGRA

Himalayan whistling thrush, darted among the branches of deodar. Often heard but seldom seen, it improvises its melody constantly, so it is not only a singer but an unparalleled composer in the world of birdcalls. However, my ears were more attuned to the song of the cicada, that I finally spotted on a silver birch on the way to the Valley. It sat on the trunk, head up, chirruping rhythmically, the tip of its abdomen vibrating. "Happy the cicada's life, for it does have a voiceless wife". Voiceless indeed, unlike us ladies, for sure!

The Bhyundar Valley itself needed more time than we had. You can spend at least three days, yet not be sated by the abundant ferns, bell-shaped purple campanulas, geraniums, little yellow violas, potentillas and the thyme and marjoram that scented the air if you stepped on them accidentally. Another time, another trip, we told ourselves. Perhaps, by then, a solution will have been found for the deceptively beautiful invader *Polygonum*, a tall, aggressive plant, which has swamped out the rest of the species in large areas of the Valley.

On the way up to Hemkund Sahib, all your human endeavours, achievements, problems and prejudices seem like a speck on the face of Nature. I envied the pilgrims, barefoot, old, young, oblivious of the cold and rain. A young man on a stretcher, paralysed, being carried up by his family, what force of faith motivated them, and led them on? They called to each other in the name of their Gurus and their God, and all of us, skeptics like me too, drew from their strength and pressed on.

I looked up to admire the brahmakamal, flowering in hundreds on the hillside. A blossom had been plucked and carelessly thrown on the path. "If you pluck one flower, you destroy one hundred blossoms for the next season" our group leader had said. So I took a photograph of the true flower hidden inside the green bracts, hoping this would at least add some purpose to the wanton destruction.



GAYATRI W. UGRA

A sonnet in blue — *Meconopsis aculeata* (above) grows on the slopes around Hemkund (below)

GAYATRI W. UGRA

Hemkund lake spread out before us, its far end a frozen glacier, from which the Lakshman Ganga flows down to meet the Alaknanda. Energetic pilgrims plunged barebodied into the icy water, but we shuddered at the thought, and sought refuge in the gurudwara, where we had steaming hot tea and *khichdi*. The rosefinches here were sleek, plump, and well-fed on

the rice left over from the gurudwara kitchen. Revived once more, we set out to look at the flowers on the hillside edging the Lake — yellow corydalis, numerous brahmakamals, blue poppies, pink androsace, the unforgettable blue forget-me-nots, and scores of flowering plant species, whose life cycle is perpetuated by more dipteran pollinators than butterflies or bees at this high altitude. Other insects — little red and orange ladybirds, robberflies and shining blister beetles moved around and fed among the herbage.

RIVKA ISRAEL

Cobra lilies *Arisaema jacquemonti* (above) and the bell-like *Campanula latifolia* (below) abound

On advice from someone who should have known better, I did not carry a raincoat, and for two days had to depend on the *desi* raincoats that are sold all along the way: for ten rupees, a plastic sheet cut and stitched into an overall, which lasts no more than two days. Discarded ones lay strewn upon the hills below Hemkund. Finally, I bought a wind cheater, a small price paid to put my conservation conscience at rest. The menace of misuse of plastic seems to follow us everywhere. At Ghanghariya, they burn the discarded PET bottles left behind, a poor solution, and piles of garbage are ample evidence of the saying "Every prospect pleases and only man is vile!"

Return journeys are anticlimactic, and to me sometimes depressing, but ours turned adventurous, with the landslide that delayed us for two hours. But for this halt, Rivka may not have spotted the black partridge calling from atop a mound. So long as we watched, the only answering call came from a rival male! A coffee locust sat sunning its brown and orange body, ants scurried along in mad pursuit of their tasks, and soon enough, the road had been cleared by the intrepid and selflessly courageous team from the Border Roads Organisation.

That last night at Ghanghariya I had woken up at 3 a.m., shaken by the sight of patterns in the dark, floral forms made of glittering diamonds! Was it a hallucination? Had I finally succumbed to the high altitude sickness that all of us seemed to be suffering? Or were these after images in the mind's eye, the impressions of the day carried into the subconscious? Beautiful beyond reality, they come back to me, as I try to tell you as best I can of a dream come true. All I know is, this trip was the beginning, not the end, of a dream!

GAYATRI W. UGRA

The Legend of Gomek

We are grateful to Mr. Freidrich Kass, a BNHS member from Germany, for sending this story to *Hornbill*. Unfortunately, we were unable to trace the source material.

On first impression, he looked like an extinct creature from prehistoric times; a gigantic, primordial beast of the kind that evokes humanity's deepest fears about ferocious animals lurking in darkened jungle, trackless swamps, or the ocean depths. This was Gomek, the giant crocodile, seen by multitudes of visitors to the St. Augustine Alligator Farm.

BEFORE his capture in 1968, Gomek undoubtedly dominated his small corner of the world, a secluded stretch of the Fly river in southern New Guinea, a large island north of Australia. During the last eight years of his life, from 1989 to 1997, the enormous crocodile thrilled visitors to the St. Augustine Alligator Farm. He spent his days and nights in a large isolated enclosure that contained a deep pool surrounded by a grassy beach. Generally, Gomek lazed in the water, as reptiles prefer, his body immersed, only his eyes and nostrils sticking above the surface. Almost daily, he emerged to sun himself on the grass. Feeding time came twice a week. From a safe vantage point on a walkway above the water, the keeper held out the carcasses of skinned nutria, a South American rodent that resembles a muskrat. Gomek came straight up out of the water to grab the food, opening his huge jaws like the hood of a car, gulping great chunks of the meat whole. He could eat one hundred pounds of meat at a single feeding.

In length, Gomek extended over seventeen and a half feet, about the same as three large men lying head to toe. He weighed a little less than a full ton. By comparison, the largest American alligator (Gomek's reptilian cousin) at the Alligator Farm measures little more than thirteen and a half feet in length. Gomek may have been between 60-80 years old when he died. He spent perhaps half of his life in captivity. During that time, he grew more than three additional feet and continued to grow at a rate of half an inch a year until his death.

Gomek represented the largest of living reptiles. His species has been reported to grow to twenty-three feet in length. Some in captivity have been weighed at 2,200 pounds. Highly mobile, they fear nothing. Their gargantuan size and

aggressive ferocity make them one of the most dreaded of all members of the animal kingdom and have earned them, certainly in the region from which Gomek came, a not entirely undeserved reputation as a man-eater.

One of nature's most finely honed killing machines, so effective that evolution has not bothered to tamper with it for over one hundred million years, the crocodile is very much in control of its environment. Although possessing a brain barely the size of a walnut, the animal understands its universe, and it seems to have focused all of its meager intelligence and primeval instincts upon the challenge of survival.

The elements of attack that crocodiles employ are silence, speed, and surprise. Once in the grip of a crocodile's powerful jaws, few animals escape. Clenching the victim with conical teeth, the crocodile drags it below the water to drown the hapless creature. Crocodiles do not chew their food, but swallow it whole. Larger prey must first be torn apart. Nile crocodiles sometimes seem to help one another dismember animals too large to consume in one piece, each croc gripping a part of the meat and the two of them then gruesomely rolling about in the water in opposite directions, stopping to gulp chunks as they are torn off.

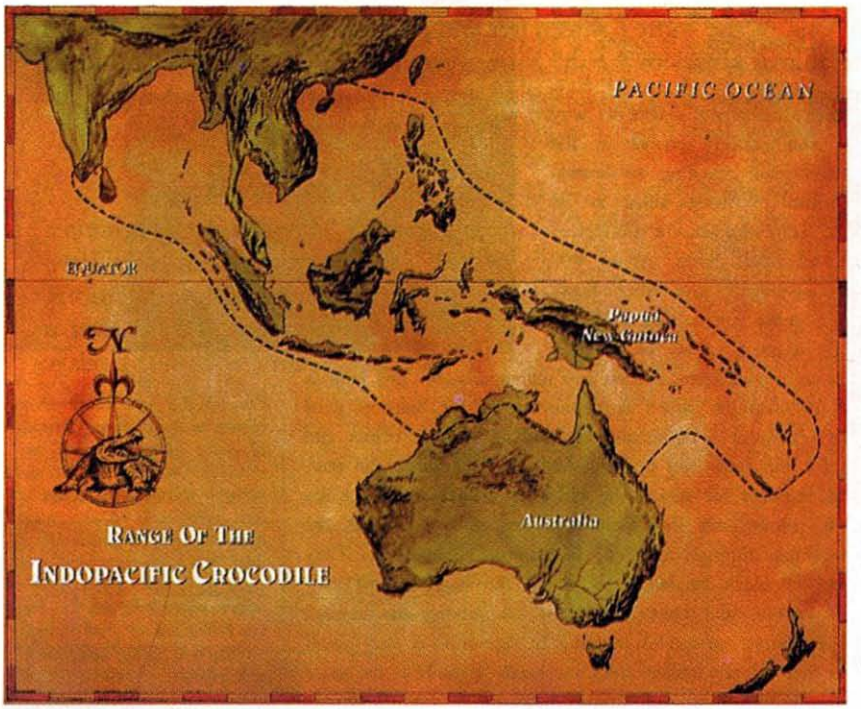
Gomek's origins

Gomek spent the first five decades or so of his life in a region located deep in the interior of New Guinea, inhabiting a swampy domain at the juncture of the Asur river and the Fly river, some 400 miles upstream, north of the Timor sea, into which the Fly river empties. Gomek was probably born in the 1930s and probably nearing the fourth decade of his life in 1968, he had grown to a length of over fifteen feet and certainly weighed more than half a ton. Moreover, he had acquired a fearsome reputation among the natives who inhabited the village near his watery domain.

George Craig and the capture of Gomek

George Craig, an Australian crocodile hunter, first learned of Gomek's existence in early 1968 during one of his periodic hunting expeditions. Some 400 miles from its mouth, the Fly river is joined by the Asur river. Natives inhabiting a village near the juncture of the two rivers told him of a "Louma," their word for a crocodile inhabited by an evil spirit. They claimed that this crocodile, which they described as black in colour, chased canoes

Above: Largest crocodile skull in the Natural History Museum of London; it was collected from India. **Below**: Over seventeen and a half feet in length and weighing nearly a ton, Gomek was the largest captive reptile in the Western Hemisphere. He dwarfs the lady and the child, who are standing behind a secure glass partition



The area within the broken line represents the range of the Indo-Pacific crocodile. Its presence in the coastal rivers, inlets amd mangrove swamps that punctuate the Asian and Australian continents and the numerous small and large islands between them often brings the reclusive reptile into contact with the humans who share its habitat

that dared to venture on the Asur river. Far more sinister, the natives said that the crocodile had killed a number of village people. They had a name for the reptile: "Louma Whalla Coremana Dikana", which described his evil nature, size, and ferocity. Crocodiles may all look alike, but Gomek they could tell apart from others.

Upon hearing their tale of the crocodile, Craig set a baited hook at the end of a large rope in the water and spent some hours probing the river's surface with a spotlight. Unsuccessful in his attempt to find the reptile, he retired for the night. In the morning, he found the bait gone. Pulling in the rope, Craig was startled to see that although the huge crocodile had not swallowed the hook it had become ensnarled in the rope. As the beast's huge head came out of the water, Craig stuck a small harpoon in its neck and quickly lashed it to the boat.

Towing his quarry near shore, Craig called for help from the villagers. It took all of twenty men to hoist the beast out of the water and into Craig's 45 feet boat. They further secured the reptile with ropes and covered its head with a sack. Kept in the dark, unable to see about them, crocodiles remain passive.

The trip back to the Island of Daru — Craig's base, took five days. Placed in a pen with a female companion, Gomek settled in for a blissful four-year stay on the island. Named for a tight-fisted "skin buyer" Craig dealt with, Gomek adapted well to his new circumstances. Not ferocious around his keepers, the crocodile instead adopted a calm demeanour.

Gomek's diet consisted of fish, principally mullet, which abounds in those waters like it does off the Atlantic coast of Florida. He was occasionally fed chickens and, like all reptiles, was not above eating his own kind if opportunity and hunger struck in concert. In captivity, crocodiles will occasionally refuse to eat. Gomek ate everything edible thrown his way. In fact, his keepers had to remove smaller reptiles from his cage for their survival. Gomek easily swallowed them whole, up to four feet in length.

Gomek comes to America

The relative size of reptiles is a pervasive part of their fascination. The larger, the more riveting. Arthur Jones of the Ocala, Florida, like others, constantly searched for creatures of great size, especially snakes, alligators, and crocodiles. Through the worldwide network of acquaintances who shared his passion, he learned of Gomek. After negotiations with George Craig, Jones purchased the giant reptile and brought him to Ocala.

From 1985, the year he arrived in the United States, until 1989, Gomek remained in a special enclosure at the Jones ranch in Anthony, Florida. The crocodile lived alone, inside a climate-controlled room that contained a shallow pool

and a raised floor of sand. After an uneventful four years there, in late 1989 Gomek moved again, this time to St. Augustine, sixty miles to the east.

Gomek becomes a legend

The owner of the St. Augustine Alligator Farm, David Drysdale, who succeeded his father as manager of the attraction, was well acquainted with the reputation and exploits of Arthur Jones. They had met personally through Ross Allen, for many years regarded as the "dean" of the community of people in Florida engaged in the study or handling of reptiles.

Drysdale also became well acquainted with Gomek, who became part of a plan formulated at the St. Augustine Alligator Farm to assemble a collection of every species of crocodilian in the world.

So Gomek's life took another abrupt turn, once again for the better. Compared with his previous surroundings, Gomek's new home was a luxurious estate, complete with a deep pool, natural vegetation, and thick grass.

Visitors to the St. Augustine Alligator Farm could view Gomek from below the waterline through thick glass windows built into the side of the pool. Looking at him through glass and water magnified his size to even greater proportions. It was a necessary feature of the facility, however, because Gomek spent most of his time in the pool, beneath the surface.

Gomek immediately became the facility's star attraction, gaining a reputation across the state and region never before accorded to one of the many reptiles that during the past century had basked in the limelight of public attention. But, then, none of them was nearly so large as Gomek, the quality about reptiles that arouses the greatest awe in human observers. Billboards throughout the region surrounding St. Augustine featured his image and name. School children came in droves to see him.

Gomek spent his last eight years at the St. Augustine Alligator Farm. As the nation's oldest city, St. Augustine is a historical attraction of the first magnitude, drawing visitors from throughout the country. Many of them visited the Alligator Farm to see Gomek. They left to spread word about him to the far corners of America. Never had a reptile of his size appeared on display in this country. In magazine and newspaper stories, on television and radio, and on billboards along interstate highways emblazoned with the name Gomek beneath his toothy image, the legend of a great reptile emerged.

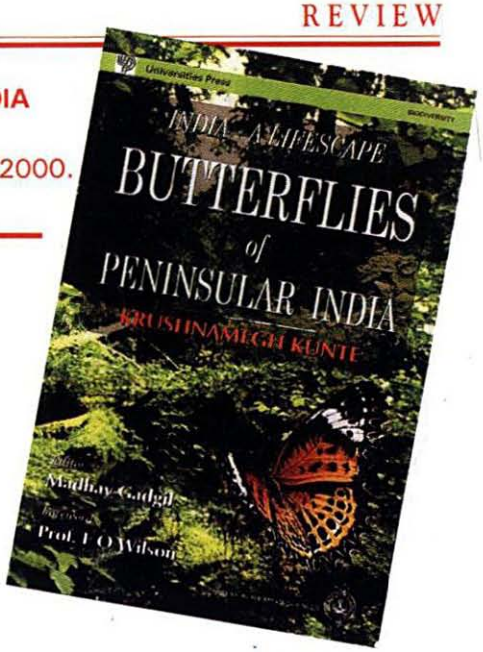
The Death of Gomek

Around noon on an early April day in 1997, keeper Jim Darlington made his rounds of Gomek's pavilion. He noticed the crocodile lying at the bottom of his private pool. While it was not unusual for the reptile to move to the bottom of the pool on occasion, this time something did not seem quite right. Quickly the pool was drained. Gomek remained motionless. He had died quietly, without a stir.

But, what a life this reptile had led! For over two decades, Gomek had entertained countless numbers of excited visitors on two continents. He drew people across far distances to see him. Among the thousands of school children who visited Gomek at the Alligator Farm, he inspired a level of devotion they generally reserve for their favourite cartoon or comic book characters. Many wept upon hearing of his death. Newspapers across the state, even major ones like the Miami Herald and the Daytona Beach News Journal, gave the news front-page attention, replete with color photos. In death as in life Gomek was the most heralded reptile the world had ever known.

After his death in 1997 from a heart attack, Gomek was flown to the Jonas Brothers taxidermy shop in Broomfield, Colorado, the only one the United States judged capable of adequately restoring the reptile's appearance. The Gomek pavilion exhibit features the giant crocodile, surrounded by photographs, maps and panels of text devoted to his legend, life and travels. Never before had visitors been able to view Gomek so closely. The new exhibit quickly became popular among visitors to the St. Augustine Alligator Farm.

INDIA - A LIFESCAPE: BUTTERFLIES OF PENINSULAR INDIA
by Krushnamegh Kunte
Published by Universities Press (India) Limited, Hyderabad, 2000.
(24 x 16 cm), paperback price Rs. 470/-.



Reviewed by Naresh Chaturvedi

In the last decade of the 20th Century, many more people are getting interested in butterfly watching. The timely publication of this book on butterflies of peninsular India will not only satisfy the queries of butterfly lovers, but will also kindle their interest to take up serious studies.

INDIA - A LIFESCAPE: BUTTERFLIES OF PENINSULAR INDIA is a well-written, informative book supported by field observations of the author. The Introduction deals with the classification, diversity and life cycle of butterflies, and how they differ from moths. The chapter on Ecology of Butterflies provides details of habitat preference. Feeding, both as caterpillar and adult, basking, mating strategies, colour variation, flight periods, migration and population ecology are explained interestingly. Threats from predators and parasites, and adaptations to escape threats are also dealt with.

The chapter on Conservation describes threats to butterflies due to habitat destruction, degradation and fragmentation, forest fires, pesticides and weedicides. The author has correctly pointed out certain inadequacies of the butterfly lists in the Schedules of the Wildlife Protection Act. He recommends objective revision of the lists to provide adequate legal protection to Indian butterflies. The author laments the absence of a special policy to conserve insects in the protected areas of India. Farming of butterflies is also recommended to provide local communities an incentive to support conservation. The chapter ends with practical advice on how one can help in conserving these flying gems. In the chapter on Collection and Preservation Techniques, the author explains the need to have permits from the State Forest Departments. The chapter concludes with good advice that it is always better to observe butterflies in the field with detailed notes on colour and markings, their habits and larval food plants, so that the availability of such information spares other butterflies from being collected.

The author has given details of all the families with natural history information on 76 species. Besides the list of larval host plants of the species described, an alphabetical annotated list of larval host plants and nectar plants, is also provided. The best part of the book is the accurate line drawings with key characters. It also has 186 colour photographs.

I am sure that this book will be useful for amateurs and young nature lovers to seriously study the fascinating world of insects. I congratulate Krushnamegh Kunte for writing this informative book.

We are grateful to the

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Living jewels of the sea

"Full many a gem of purest ray serene
The dark unfathom'd caves of ocean bear..."

Thomas Gray

PARVISH PANDYA

The blue surgeon fish has a conspicuous yellow band to mark the location of its spine. Also seen are three cleaner wrasses

B.F. Chhapgar

Dr. B.F. Chhapgar writes the Seashore Lore series in *Hornbill* under the pen name of his initials Be-ef-sea.

Ask a nature lover which are the prettiest and most colourful creatures on earth, and chances are that the reply will be birds and butterflies. Accustomed as we are to the sight of slimy, slippery, slaty-grey fishes staring at us goggle-eyed from a fisherwoman's basket, most of us cannot imagine that fishes too can be pretty. Yet the vast majority of fishes living on and among coral reefs are considered to be the most colourful denizens of the watery world. And they are not just dumb beauties without intelligence; their strategies for survival can leave us gaping with surprise and admiration. Also remember that close to half of the total variety of marine fishes live on or near coral reefs.

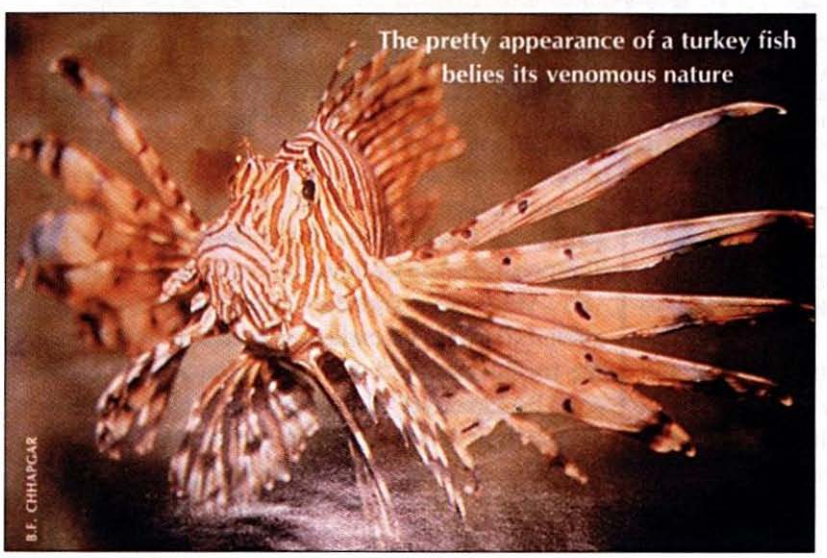
And where can we see these beauties? They are found, apart from the Lakshadweep and the Andaman and Nicobar Islands, in the Gulf of Mannar that separates the Rameswaram – Tuticorin coast from Sri Lanka. Some coral fish also dwell at Okha and Pirotan in the Gulf of Kutch. In Mumbai, they used to be displayed at the Taraporevala Aquarium until five or six years back.

Why are coral reef fishes so gorgeously coloured? Scientists earlier believed that they match the bright hues of live corals, blending with the coral background. But there is more to it than just camouflage. Birds occupy a certain territory and defend it against rival birds by song and posture. The "flag" or "poster" colouration of reef fishes similarly serves to advertise to rivals their dominance in the chosen area.

And how have these coral reef fishes spread over vast stretches of the Indian and Pacific Oceans? Most fishes living in coral reefs lay their eggs there. The eggs generally hatch after 24 hours. The young fish larvae leave the reef and spend weeks, and sometimes months, drifting in the open ocean before settling over another reef which may be hundreds of kilometres away. This is how reef fishes get distributed over vast stretches.

Butterfly fishes are aptly named, from their pretty colouration and habit of flitting from one coral head to another, just like a butterfly does around flowers, picking out their food from coral crevices with the help of their slightly elongated snouts.

Most of the ten varieties in our seas have a yellowish ground colour, although their sole representative in Mumbai (*Chaetodontops collaris*) has a brownish body with a cherry red tail. A typical butterfly fish is *Linophora vagabundus*. As with all butterfly fish, its eyes are covered by a vertical black stripe running over them. The head is the most vital part of an animal, as it contains the brain. A predator invariably targets its prey's head. And the round, glistening eyes of a fish are its most conspicuous part, hence the need to conceal them. All butterfly fish do this successfully. You may wonder why the two series of parallel stripes meeting at right angles on the body are there. A butterfly fish's body is flat, and they swim together in shoals. Hence, a fish in a shoal sees a fish in front only as a flat figure, without any ornamentation. To avoid mixing up of two different kinds of butterfly fish over a reef when their shoals accidentally meet, a butterfly fish will see the pattern on its neighbours' bodies and avoid getting separated from its brethren.

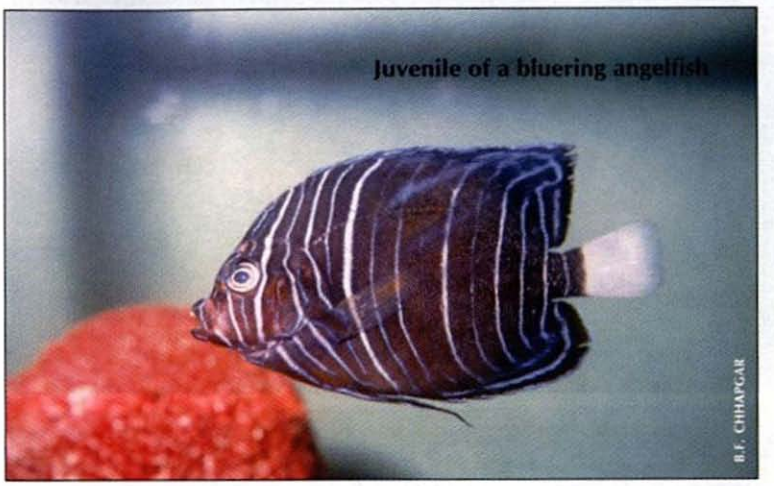

B.F. CHHAPGAR

The pretty appearance of a turkey fish belies its venomous nature

I am justifiably proud of the bluering angelfish (*Pomacanthodes annularis*), as it was one of my significant "discoveries" in the field of marine biology. There are three kinds of angelfish in our seas. It was known that they change their colour as they grow. Thus, the colour changes during the growth of the Emperor angelfish (*P. imperator*) and Koran fish (*P. semicirculatus*) were well documented, but not so the bluering angelfish.

In Mumbai, we have only one species of angelfish, the bluering, which is aptly named, as there are metallic blue curved bands on an olive-yellow body. The fish grows up to more than 30 cm. As Curator of the Taraporevala Aquarium, I used to collect them at Bandra for display at our Aquarium. During the late monsoon, we also caught a small fish, never more than 10 cm, with vertical white stripes on a navy blue body. From the Bible of ichthyologists — FISHES OF INDIA by Francis Day — we identified it as *Holacanthus striatus*. In the beginning, we were not able to keep it in captivity for more than a fortnight. Once, when we had this fish alive for over a month, the blue colour started fading, and so did the white stripes. Thinking that the fish was ill, I doctored it and it lived. Behold my surprise when curved metallic blue bands started appearing on the body, coupled with the body colour changing from navy blue to olive yellow! At one stage, it looked as if it was a cross-breed between *striatus* and *annularis*. It was just serendipity that this specimen lived long enough for me to establish that the so-called *striatus* of Day was, in fact, the juvenile of a bluering angelfish. And I had my first paper in the prestigious "Aquarium Journal" of the San Francisco Aquarium Society.

Some reef fishes protect themselves with spines. The blue surgeon fish (*Acanthurus leucosternon*) has a sharp edged spine on each side of the root of the tail. Like a pen knife, whose blade is normally folded within the handle to enable us to keep it in our pocket without causing injury, these spines are normally embedded in the muscles of the tail. But on any perception of threat, the surgeon fish flicks the spines out of its body, ready to cut and injure its opponent. The spot where the spine is hidden has a different, conspicuous colour — yellow in the case of this surgeon fish, which stands out vividly against the blue body to serve as an effective warning.


Juvenile of a bluering angelfish

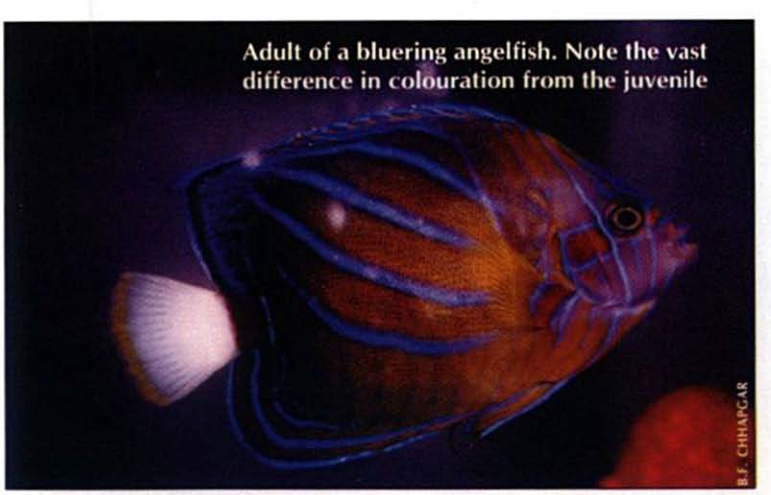
B.F. CHHAPGAR

Allied to surgeon fishes, yet looking completely different, is the Moorish idol (*Zanclus cornutus*). A comic looking fish with a flattened, sulphur-yellow body with coal black bands, it swims in shoals on the coral reef. In the middle of the snout is a saddle-shaped orange spot. On top, like a schoolgirl's pigtail, is the long, thread-like fin. The pennant fish (*Heniochus acuminatus*) has a similar black-white-yellow pattern and long fin, but is allied to butterfly fishes. The curve of its stripes makes it look as if a chunk of its body at the back has been bitten off.

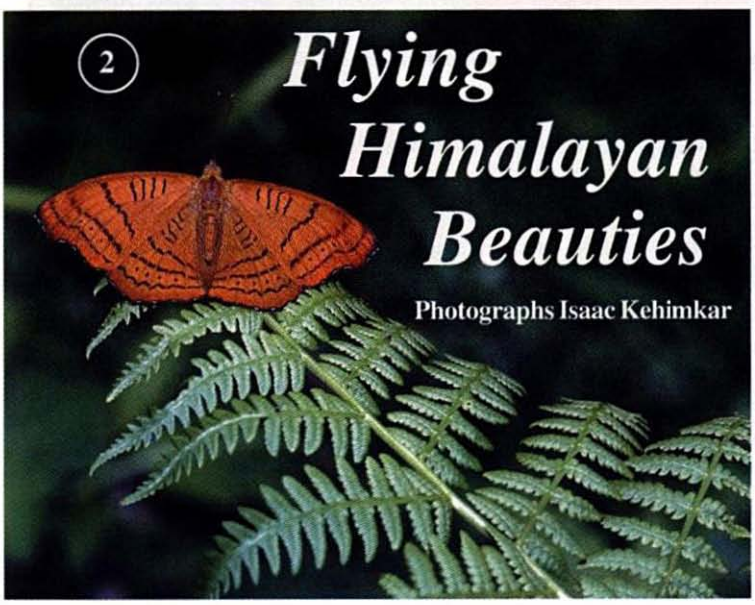
The turkey fish (*Pterois volitans*) goes a step further. The array of long spines on its back are hollow, and at the base of each spine there is a venom gland. When threatened, the fish erects the spines, ready to jab them at an intruder. The spines act as syringe needles to inject the venom. To warn enemies of its potential danger, it flaunts prominent stripes on its body, while the fins behind the head are beautifully elongated and frilled, looking somewhat like a turkey's feathers, hence its name. In America, it is called lion fish, as the frilled fins, when erected and seen from front, remind one of a male African lion's mane.

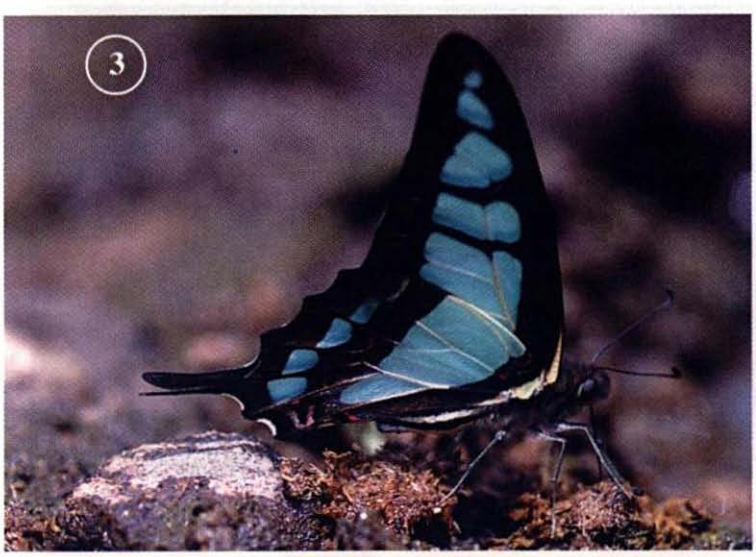
Wrasses give a headache to people who classify fish. During their growth, their colour pattern keeps on changing, so that there are two male colour patterns and many intermediate colour phases. Many wrasses make their own "nightgown" every evening, by exuding a copious secretion of slime to cover their body in a cosy translucent blanket. They sleep securely within it. Their main enemies, moray eels, hunt by smell as their eyesight is poor. When the morays come out at night in search of wrasses, the nightgown prevents the wrasses' body odour from attracting the morays. It's just a different kind of deodorant from what human beings use!

There is one kind of wrasse that deserves special mention. It serves as a doctor-cum-dentist, and even has its own dispensary! The cleaner wrasse (*Fissilabrus dimidiatus*), a slender fish the length of our little finger, selects a rock or coral head as its dwelling and does not go far from it. Fishes on the reef know this location, and come to the "clinic" when they have festering wounds or parasites lodged on their skin and gills. The cleaner wrasse goes over the patient's body, and even enters the mouth to look at the gills, deftly picking up the parasites or nibbling away the dead tissue on a wound.


Adult of a bluering angelfish. Note the vast difference in colouration from the juvenile

B.F. CHHAPGAR





1. YELLOW COSTER ***Pareba vesta***
At times, especially in July, these butterflies can be seen in swarms, but rarely away from their food plants like *Boehmeria* or *Passiflora*.

2. TABBY ***Pseudergolis wedah***
Confined in the vicinity of hill streams, this dark butterfly with wavy lines could be easily mistaken for a Common Castor.

3. GLASSY BLUEBOTTLE
Graphium cloanthus
A restless flier, it is often seen mudpuddling along the roadside at an altitude between 600 - 2,700 m. It is seen from February to October from Kashmir to Arunachal Pradesh.

4. LARGE SILVERSTRIPE
Argynnis childreni
Finest among the India Fritillaries, this large nymphalid, with a wingspan of 75-100 mm is common all along the Himalayan range from 1,200-2,700 m.

5. BATH WHITE ***Pontia daplidice***
A butterfly of open, grassy glades and farmlands. It is common at 1,200-2,700 m in March, May to September and December throughout the Himalayas.

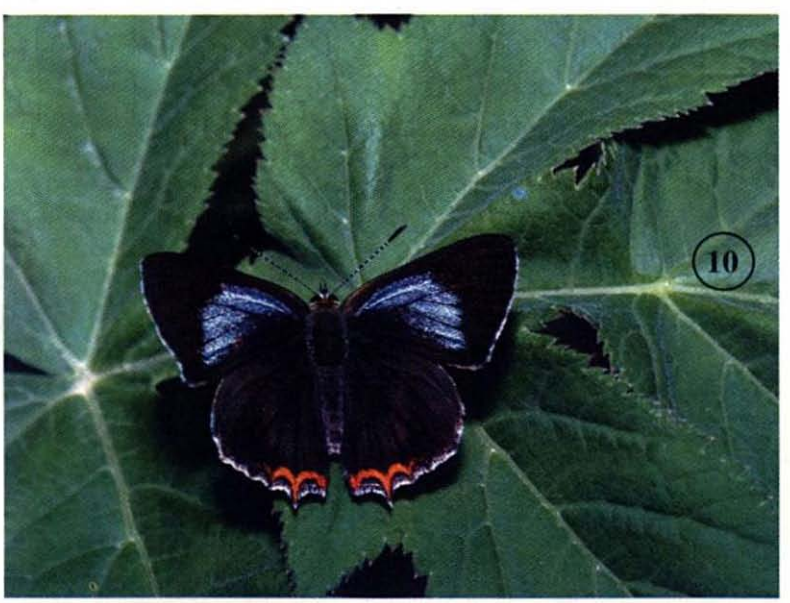
6. EASTERN COMMA *Polygonia egea*
Elusive and wary, this nymphalid prefers dung, urine or rotten fruits to flowers. It ranges from Kashmir to Arunachal Pradesh.

7. WHITE-BORDERED COPPER *Lycaena pavana*
This dainty sun-worshipper keeps low among the shrubbery flitting over flowers. In the Himalayas, it occurs from 1,800 m - 3,960 m.

8. GREAT BLACKVEIN *Aporia agathon*
Flies in the forested valleys throughout the Himalayas between 640 - 3,048 m from March to July.

9. COMMON PEACOCK *Papilio polyctor*
This spectacular swallowtail prefers forested hills and warm valleys from 600 m up to 2,100 m. It is on the wing from March to October throughout the Himalayas.

10. GREEN SAPPHIRE *Heliophorus androcles*
The pugnacious male often waits at lookout points to defend his territory from other males. The females are dark brown and lack the silvery blue iridescence of the male.



Innocent victims

A couple of years ago, I was at the Mangrol seacoast near Porbundar on the southern seacoast of Saurashtra. During my twenty-day stay, I didn't see a single pariah kite. Brahminy kites seemed to have replaced the numerous pariah kites that used to exist earlier.

Pariah kites are usually seen near slaughter houses, but there are none near the Mangrol abattoir! Flying around the Junagadh meat yards, at least a thousand pariahs might be seen any day, performing gorgeous acrobatics to get at the offal. If you throw pieces of meat from a high terrace, you'll be rewarded with the spectacular sight of diving and wheeling pariahs, a sight worth freezing on film. Small eagles also join the young and mature pariahs; but there are no brahminy kites in this place that is just 60 km from the Mangrol coast.

Pesticides seem to be the most likely reason for the decline of the pariah, considering that the brahminy, which largely feeds on unpolluted marine biota, has prospered. There has been large-scale use of pesticides in recent times and the pariah kite, dependent on mice and carrion, seems to be the primary victim. Other raptors may also have suffered. This simple observation needs verification by experts.

Anwar Khan Babi
Rajkot, Gujarat.

Nesting of black-necked stork

I visited the Khijadia Bird Sanctuary about 15 km from Jamnagar, Gujarat, which is inhabited by many resident and migrant birds. Khijadia Bird Sanctuary, 6.05 sq. km, is unique in having both freshwater as well as marine ecosystems, which attract a wide variety of avifauna.

On August 16, 2001 while surveying nesting birds for a project undertaken by the Gujarat Ecological Education and Research (GEER) Foundation, Gandhinagar, I viewed a heronry from watch tower No. 2 (Khijadia village) with the Forest Department personnel. Suspecting the presence of a black-necked stork on a *Prosopis juliflora* tree, we approached the site to confirm it.

To our surprise we found a nest of this largest stork of Gujarat, located about 1.5 to 2.0 m from the water level. The massive dome shaped nest was made of *Prosopis juliflora* sticks. An adult was seen incubating, and another feeding on a mudflat nearby. There is no doubt that this rare stork of Gujarat had nested at the Khijadia Bird Sanctuary, and according to the Forest Department personnel it was the first such record.

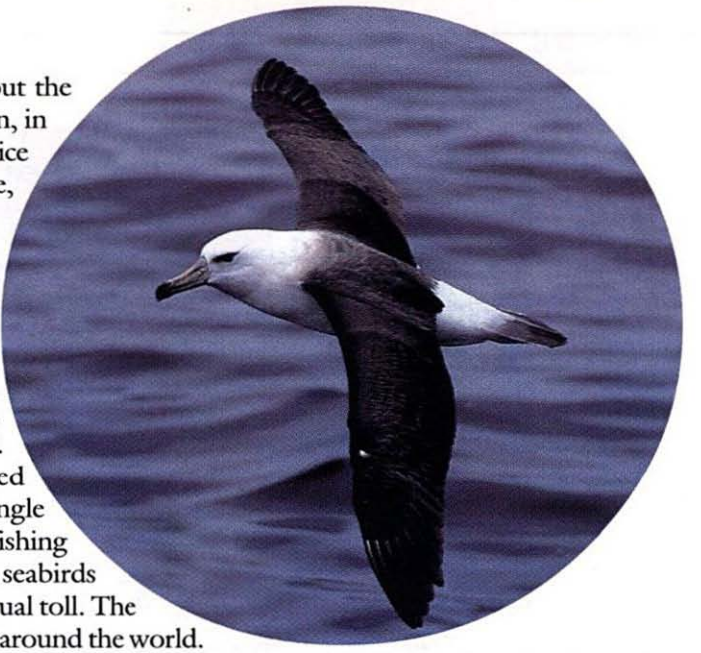
Jayprakash Narayan Patel
Ahmedabad, Gujarat.

Nothing goes waste in nature

The tall jackfruit tree, which stands just outside my office window in the Chhatrapati Shivaji Sangrahalaya (earlier Prince of Wales Museum) compound, bore plenty of jackfruit this year. The Museum authorities picked a few of them, while the rest were left to rot. With time, the ripened ones ultimately dropped to the ground. That was when I learnt some secrets of Mother Nature. Crows, robins, bulbuls, coppersmiths, koels are common visitors to this tree. But the crows are the fastest when it comes to food. Having sighted the ripe jackfruit on the ground, they cawed till the attention of the others was drawn to the heavenly feast. That day when I looked out again in the afternoon, I saw hundreds of common butterflies enjoying the remainders of the ripe jackfruit left by the crows. When nothing is ever wasted by the other denizens of this planet, can't we follow their footsteps, to make our earth a more habitable place for future generations.

Namita Sankhe
Mumbai, Maharashtra.

Save the Albatross



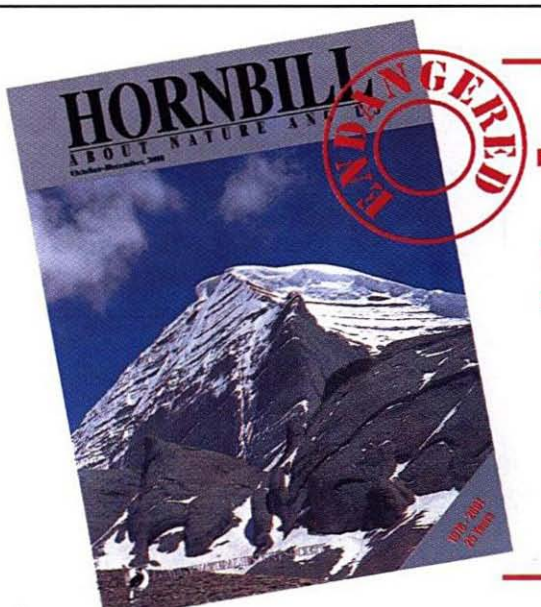
In response to 'Such a Long Journey' about the wandering albatross by Dr. Rachel Reuben, in the January-March issue of the *Hornbill*, the Vice President of the Rare Bird Club, Cambridge, UK sent us the following information:

Twenty-two species of seabirds, including 17 species of albatross, are being drowned to extinction in huge numbers by longline fishing boats. While scavenging behind these boats, they try to grab the bait as it sinks, and they get hooked along with the bait, are dragged underwater and drowned. More than 300,000 seabirds die on baited longline hooks every year, making this the single greatest threat to the world's seabirds. Pirate fishing boats in the Southern Ocean kill 100,000 seabirds every year, which is one third of the total annual toll. The rest die in the licensed legal longline fisheries around the world.

BirdLife International's Save the Albatross Campaign is working to halt the needless slaughter of these magnificent seabirds. It aims to ensure that global agreements are implemented, along with other actions that benefit seabirds and promote sustainable longline fishing through the adoption of simple practical measures that reduce the number of seabirds being killed.

Among the many things that you can do to Save the Albatross are

- Join your national BirdLife Partner to add your voice to the campaign
- Donate direct to support the campaign via www.birdlife.net
- Use your consumer power to ask fish retailers or supermarkets if the fish they sell is from a certified 'seabird-friendly' source (explain it to them)



A colourful, fun packed magazine cannot be produced on a shoestring budget. We seek your support to help sustain the quality of *Hornbill*. All donations to the BNHS are exempt under Section 80G and Section 35(1)(ii) of I.T. Act, 1961.

" Earth provides enough to satisfy
every man's need,
but not for every man's greed."

(Mahatma Gandhi)

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Indian Oil Corporation Limited

Mr. Z. Cama, CEO, HSBC releases the new BNHS publication as the President Mr. B.G. Deshmukh and author Mr. J.C. Daniel look on

A new BNHS Publication

There has been no book to rival J.C. Daniel's earlier BOOK OF INDIAN REPTILES, first published by the Bombay Natural History Society in 1983. He now presents an entirely new text of not only a larger number of reptiles, but has also described amphibians, a much neglected group. *The Book of Indian Reptiles and Amphibians* was produced with financial support from the Seth Purshotamdas Thakurdas and Divaliba Charitable Trust. It was released on July 9, 2002.

Indian Bird Conservation Network Website launched

Mr. Steve Parr, International Officer of the Royal Society for the Protection of Birds launched the Indian Bird Conservation Network (IBCN) website on September 19, 2002, at Hornbill House. The IBCN is a network of Indian organisations and individuals who have agreed to collaborate, and to promote the conservation of birds in India, and through them, biological diversity as a whole.

The site will highlight issues at the national level, encourage researchers, forest managers, professionals and amateur conservationists to work together for conservation, collect information and maintain data bases, which can be further disseminated by its partners who have access to this data. Information on Important Bird Areas and details on threatened birds, restricted range birds, biome related birds and congregatory birds will be freely available on the site. For further information visit www.ibcnetwork.org or email us at <IBAbnhs@vsnl.net>

Mr. Steve Parr launches the IBCN/IBA Website as the members of the IBCN and IBA projects look on

Implementation of the National Wildlife Action Plan

Mr. P.V. Jayakrishnan, Secretary, MoEF, (centre) visited the BNHS Collection where Dr. A.R. Rahmani, Director, BNHS, and Dr. S. Unnithan, Scientist in charge of Bird Collections, BNHS among others briefed him about the Collections

The Bombay Natural History Society held a workshop on the Implementation of the National Wildlife Action Plan (NWAP) with specific reference to the Western Ghats (Maharashtra, Goa and Karnataka) and the Satpura region (Maharashtra and Madhya Pradesh) on September 14, 2002 at Hornbill House.

Mr. P.V. Jayakrishnan, Secretary, Ministry of Environment and Forests (MoEF) and Mrs. S. Jayakrishnan participated in the deliberations. Mr. B.G. Deshmukh, President of the BNHS, had been appointed by the government as Chairman of the Special Committee to draft the NWAP, and it is fitting that the BNHS is playing a lead role in helping to implement the many far-reaching recommendations laid down in this vital document.

Towards this end, the workshop served to highlight areas where implementation could be furthered with help from BNHS' scientific expertise and its resources, including 5,000 motivated and knowledgeable members. The discussions benefited from the presence of the Maharashtra Forest Secretary, Mr. Naveen Kumar. Diverse NGOs and individuals involved with wildlife protection participated and made crucial presentations highlighting tiger corridor restoration, the need to protect watersheds and the complexities of the legal and social issues involved in protecting wildlife.

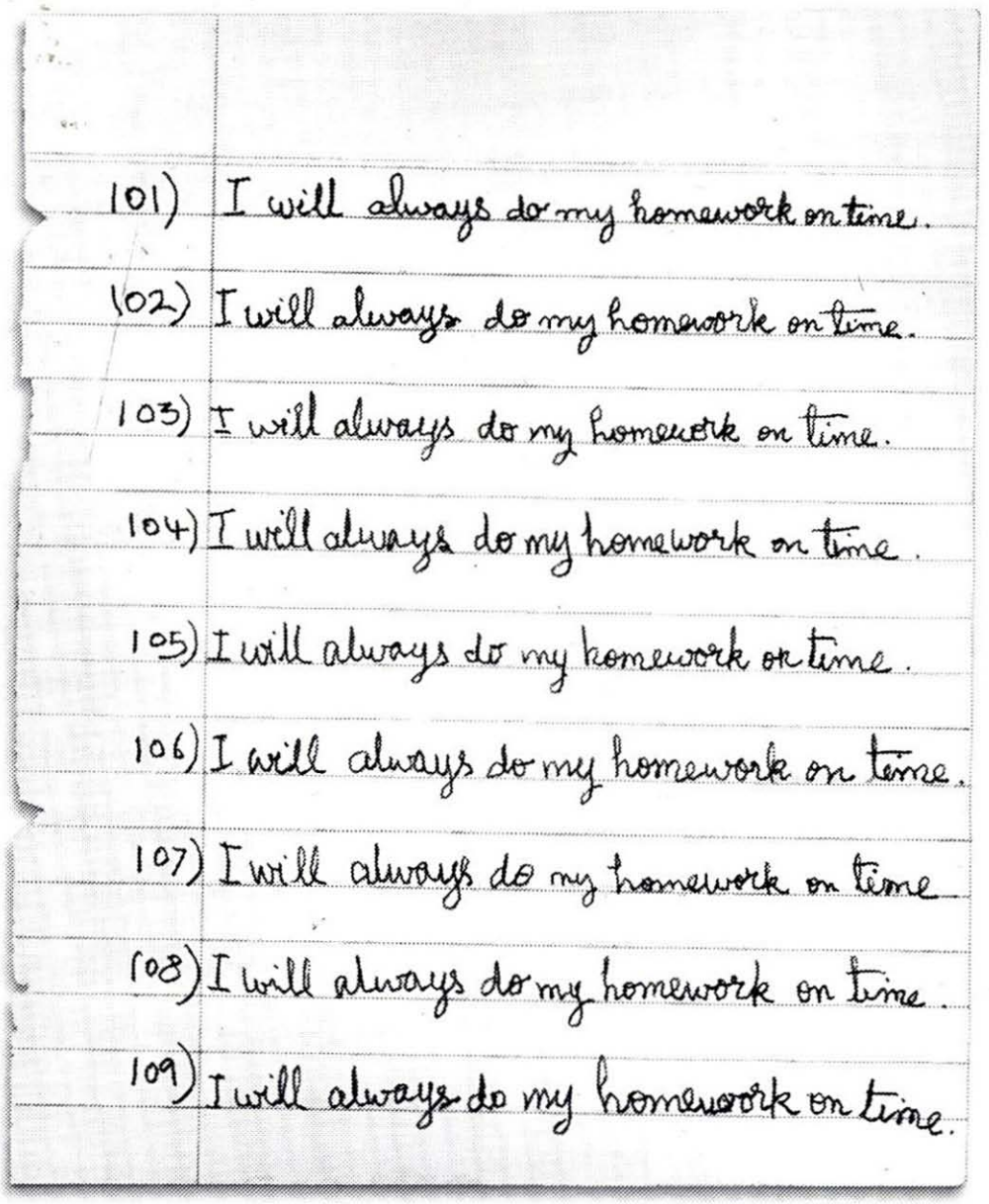
Participants felt that a combination of available legal provisions would need to be employed, including the Wildlife (Protection) Act 1972, the Forest (Conservation) Act 1980 and the Environment (Protection) Act 1990 (for the declaration of ecologically sensitive areas, a key recommendation of the NWAP).

The BNHS' Conservation Subcommittee has received unprecedented support from members in response to the 'Defending Wild India' appeal that was recently circulated. A major conservation project, designed to harmonize membership and scientific strengths of the Society for the implementation of the NWAP, has been submitted for funding to the MoEF. The Conservation Officer will be conducting a site visit to the Western Ghats and Satpuras to tie up local partnerships and report on possible strategies and partnerships.

Apologies!

Mr. J.P. Irani, whose close association with the BNHS is well known, painted and gifted the handsome portrait of Mr. Humayun Abdulali, to whom the BNHS Bird Collection Room was dedicated recently. The editors reget having failed to mention this in the *Hornbill*, April-June, 2002.

PAINTING J.P. IRANI



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