The Strandloper
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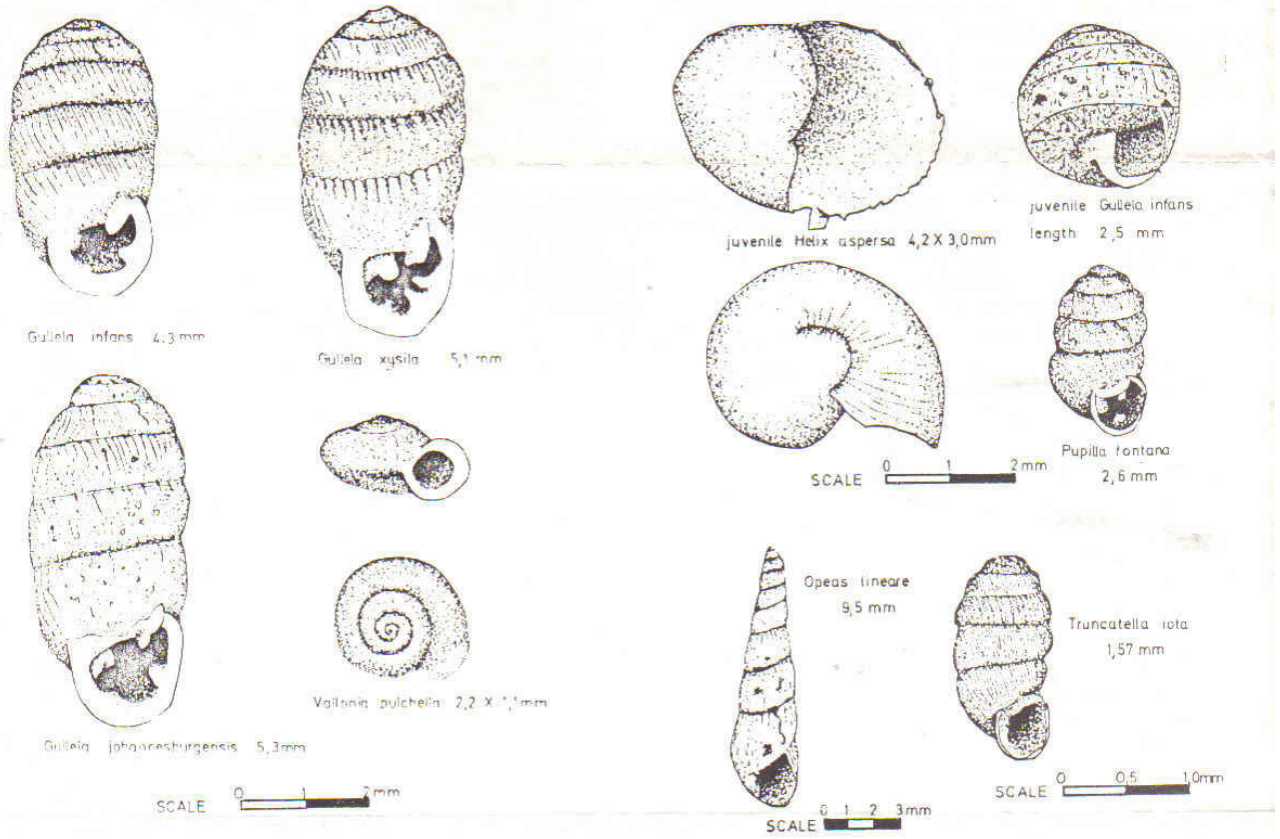

TRANSVAAL'S TERRESTRIAL TYPES

by KENNETH BROWN

Yes, unfortunately the average Transvaaler is limited in his conchological pursuits to brief flashes of phrenetic shell collecting once or twice a year at the coast. He tends to overlook the fact that he is resident in the 'big game' area of the modest creature, the Landsnail. This article is intended to show that inland collecting can prove a rich and rewarding experience – even in one's own locale.

I live near the Randpark golf course, situated north of Johannesburg, in a typically Highveld terrain. The landscape consists of weakly defined topographical features seen as broad, undulating plains of coarse sedimentary deposits overlaying Precambrian granites and ancient schistose rocks. The Klein Jukskei river, rising in the western outreach of the Witwatersrand ridge, flows northwards, and just below the far end of the golf course the river bed exposes these ancient coarse granites. The general soil type in the area consists of a coarse red quartzitic sedimentation and a highly ferruginous clay, and probably amounts to an immature transitional soil[1]. In this area the conchology is restricted to the extremely common **Helix aspersa (Müll)**[2] and less frequently to **Oxychilus cellaria (Müll)**[3].

Within the central portion of the golf course, and extending in a northerly direction, the general country sediments are invaded by narrow slit extrusion of dark, dense and finely grained igneous rock. The rock is probably a diabase or pyroxene-olivine of the pyroxenite group. This dyke of rock stands out as a prominent ridge, and is covered by a luxuriant growth of tree, shrub, fern and grass life in comparision to its surroundings. This

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is probably due to the fact that the soil on and within several metres of the dyke is a dark grey-black colour, fine grained and rich, and clearly being the cause of the increased vegetation. Within this specific area I have to date found a surprisingly large amount of landsnails, usually just under the soil's surface or under decomposing leaf mulch. Of the specimens taken, those found live in appreciable numbers included **Gulella infans** (Crvn.)[4], **Gulella xysila** (M. & P.)[5], **Opeas lineare** (Krs.)[6], **Helix aspersa** (Müll) and **Oxychilus cellaria** (Müll).

In the dark soil, usually near the base of rocks with wild grass growing nearby could be found **Gulella johannesburgensis** (M. & P.)[7] and **Gulella pretoriana** Conn.[8], the latter bieng distinguishable from **Gulella xysila** by the fact that its sculpture is confinedto the sutural region, and the upper labral denticle being far weaker. Two other as yet unidentified species of Gulellae were found as well. In small localised patches I found large colonies of long since dead **Pupilla fontana** (Krs.)[9] and **Gastrocopta damarica** (Ancey)[10]. Where the dead leaf carpet was at its thickest I found many dead **Truncatellina iota** (M. & P.)[11].

Due to lack of knowledge and adequate comparative materials, I had originally identified most of my **Gastrocopta damarica** (Ancey) as the similar European shell **Carychium minimum**, but under the microscope the ribbing of the European shell was far less prominent than the clearly defined transverse microscopic striolae of the **Gastrocopta**. This proves the greatest drawback to collecting of landsnails — the paucity of readily available literature, even of a comparative nature, to the neophyte to landsnailing.

Opeas lineare (Krs.) could be found both live and dead, and many recently dead specimens of **Vallonia pulchella** (Müll)[12] were dotted all over the soil — but no live specimens were found. Needless to say **Helix aspersa** (Müll) thoroughly infested the area. The small stream nearby yielded live specimens of **Lymnaea columella**[13]. What surpirsed me was the total absence of the genus **Conulinus** (Edouardia?) of any sort, which can be found in the nearby Transvaal System's dolomitic rocks. This particular ridge has, up to this point, yielded 16 different landsnail species, which, for so localised an area, seemed to merit some comment; and apart from the occasional wayward round white missiles being driven by aspirant G. Players, the collecting has proved that "there's no place like home" to start landsnail-collecting.

REFERENCES

NB All illustrations by Mike Cortie.

1. E. Mellor: "The Geology of the Witwatersrand"; Geological Survey Special Publication No. 3, 1917.
2. Barnard: "A Beginner's Guide to South African Shells".
3. M. Connolly: "A Monographic Survey of South African Non-Marine Mollusca": Annals of the South African Museum 1939, p 170–171.
4. M. Connolly: op cit 26, 654.
5. M. Connolly: op cit 63.
6. M. Connolly: op cit 348.
7. M. Connolly: op cit 30; M. Connolly: "New South African Gulellae, with notes on Certain Other Species", Annals of the Natal Museum, 1932–34, p. 90.
8. M. Connolly: "A Monographic Survey of South African Non-Marine Mollusca", Annals of the South African Museum 1939, p. 59.
9. Ibid 391–392.
10. Ibid 374–375.
11. Ibid 404.
12. Ibid 373.
13. Barnard: op cit.

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MARINADED MARINE SHELLS

by

DAVID STRONG

The 23rd of August 1980. It was on this fateful day that I decided to experiment in a new field, that being to rid shells of their encrustations with the use of the acetic acid, vinegar.

Results were surprising. I placed two small shells in a plastic pill vial and half filled it with grape vinegar. I pressed the plastic cap firmly into place and left it to do its thing while I went off to enjoy my lunch.

When I came back to see how my new cleaning process was coming on, I saw to my dismay a somewhat disturbing chemical reaction taking place on my shells. Tiny bubbles, supposedly a gas resulting from the reaction between the vinegar and the encrustations on the shells, were moving rapidly to the surface giving the effect of a fizzing Coke. I also noticed that the cap on the vial had been pushed up so that it threatened to explode. My dad calmly suggested that I move the concoction out onto the stoep. This I did, also removing the cap, but alas, the reaction persisted.

Eventually I reached the panic stage, quickly dumped the vinegar and scrubbed the shells under the bathroom tap. And the results were excellent! The encrustations seemed to peel off leaving the shells undamaged and more or less clean.

At this point a word of warning: Do not leave your shells in vinegar for too long or you will almost certainly lose them, for good. Depending on the shell size, about five or ten minutes should be enough and a quick scrub should do the rest, because vinegar will dissolve a shell.

In an article by Charles Cardin in 'Of Sea and Shore' magazine for Fall 1975 I discovered that one can also use the following solutions for cleaning periostracum, lime deposits and other organic encrustations:

(i) Bleach — for periostracum
(ii) Ammonia and water — for stains
(iii) Cleanser, no specifications, a half teaspoonful - for stains. He mentions that this 'cleanser' destroyed his murex shell in five minutes, so it must have been a strong acid.

I think that although only two shells were used in the experiment, it was thoroughly successful. I can detect no smell and the shells appear to be very natural in colour and condition. So, for anyone out there willing to try it, go ahead, but remember not to leave them in the solution for too long.

Below is the chemical reaction as given to me by my Science teacher, Mr G. Leigh. Please note that I do not know the exact composition of the encrustations, but I have taken it to be calcium carbonate, i.e. $Ca\ CO_3$. The vinegar is an acetic acid with the formula $CH_3\ CO\ OH$.

Resultant equation:

$$2CH_3\ CO\ OH + Ca\ CO_3 \longrightarrow Ca(CH_3COO)_2 + CO_2(g) + H_2).$$

The (g) denotes the gas bubbles given off, i.e. carbon dioxide.

SCOTTISH STRANDLOPERS?

By T.R. DUNCAN

Scrabster beach, on the north coast of Scotland, is a small beach backed up by alow cliff of boulder clay. During times of storm and spring thides this cliff is undermined and periodically portions of it are washed away by the sea.

Whilst shelling on this beach I discovered large quantities of very old limpets **Patella vulgata** and periwinkles **Littorina littorea** mixed in with a portion of the cliff, which had recently fallen. Buried at the top of the cliff was what appeared to be a man-made trench lined with stones and filled with rubble with a layer of black soil about 30 cm deep at the bottom. Further investigation showed that the black soil was in fact charcoal with shells and small bones mixed in it.

With the help of the local field club the trench was excavated and found to be about 180 cm wide by 180 cm long and 120 cm deep. The cliff slumping had destroyed most of the trench leaving one end buried in the cliff. During the excavation a bronze artifact, heavily corroded, was found.

The British Museum in Edinburgh was informed of the find and the artifact sent to them for identification. The informed us that we had discovered a Viking dwelling of around 900 AD and the bones and shells were the remains of the food the people had lived on. The artifact was however the buckle from a belt of a type commonly worn around 1400 AD.

Near the Viking dwelling are the ruins of a castle which was inhabitated during that period by the Bishop of Caithness. It was suggested by the museum that at that time the Viking dwelling was still a trench in the ground and had been used by the castle servants as a dump for the castle rubbish, which would explain the presence of the belt buckle.

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We would welcome any article of interest to Shell Collectors for future publication.

DONATIONS TO THE STRANDLOPER

The Editor acknowledges most gratefully the generous donations of shells htat have been sold for funds to defray the cost of printing this magazine. The Branches in Pretoria, East London, Cape Town and Natal have all come forward enthusiastically with shell parcels. This means, of course, that individual members have given freely of their shells, and the Editor is proud to be of service to such public spirited people.

We are also pleased to be able to announce that the Department of National Education has given the Conchological Society a grant of R250 which is also to be used towards publishing costs. This will make it possible for us to consider further special colour illustrations, beyond the one which is in preparation on the South African Marginellidae. Further particulars of this issue and its financing will follow shortly.

As the exchanging of shell parcels for sale among the Branches has been so well received, this is perhaps a project that should be continued, if Branches wat to, as it will only benefit the Society to upgrade the magazine. Branches could also use this method to raise funds for their own local needs if they can get the co-operation of other groups. It certianly stimulates an excellent spirit in the Society and helps members to get to know one another and feel that they belong to one organisation.

Thanks again for your help.

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CAPENSIS SPECIES

A year ago, in issue No 197, we carried a paragraph about the number of species with the name **capensis**. At that time we had about two dozen, taken from Barnard's Beginner's Guide.

Well, in 1915 Paul Bartsch pulished his report on the Turton Collection and other S.A. shells in the U.S. National Museum in Washington (Smithsonian Institution Bulletin No 91). The index lists no fewer than 59 genera of univalves and bivalves and cephalopods with the species name **capensis/e**.

This must make it almost as much of a South African institution as the suffix **-fontein** tacked onto so many of our place names.

Running a very close second is **africanus/a/um** with 51 species, followed by **alfredensis** with 45 and **natalensis/e** with 43.

Turton, who collected so assiduously at Port Alfred, might have been responsible for some of the **alfredensis** names, but he did use his imagination in proposing other related names for a good number of species from that area. As he explains in the very interesting introduction to his book, The Marine Shells of Port Alfred (published 1933) he used **kowiensis**, **rietensis** and **rufanensis** after the three rivers near the town, and **albanyana** after the magisterial district of Albany in which the town is situated.

There is a lot to be said for choosing geographical names for species, because this does distinguish them. Of course it is essential to get your facts right first, otherwise there will be confusion for generations afterwards as we know all too well with the anomalies and arguments over **Conus mozambicus** and **algoensis** from the Cape Peninsula, and **Cypraea capensis** from the East London area. And many other misnomers elsewhere in conchology.

And that's one reason why shell collectors are always being urged to record accurate and complete data with their shells and to use reliable cataloging systems.

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THE CONCHOLOGICAL SOCIETY OF SOUTHERN AFRICA
(Founded 1958)

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The Financial Year runs from 1st July to 30th June, and members joining after December need only pay one half the subscription to ensure membership to 30th June. Members joining after March are expected to pay a full subscription which will be carried forward to the following year.
An Entrance Fee of R1,00 (U.S.A. $1,50) is payable by all applicants except Student members.
The Society's Bulletin, The Strandloper, is issued free to members.
The Society has active groups in the following areas:—

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Advertisements are accepted for publication in The Strandloper. Advertising rates supplied on application. The Society accepts no responsibility for any transaction arising from advertisements published in good faith.

THE SOCIETY'S ANNUAL GENERAL MEETING

The annual general meeting of the Society was held in the South African Museum's lecture room on the evening of Monday, September 8th 1980, following the adjournment of the monthly meeting of the Cape Town Branch.

The notice convening the meeting was read and the minutes, as previously circulated to members, were adopted. The reports of the Secretary and Treasurer, as circulated, were tabled and adopted.

Mr Freeman, in the chair, explained the position arising from the resignation of the Secretary and Treasurer as earlier reported, and called for assistance from members. The Society's thanks to the retiring Secretary and Treasurer were recorded, and to the rest of the Council.

Correspondence and financial matters would continue to receive all the necessary attention until permanent office bearers can be found.

Nominations having been received in terms of the Constitution, the following were delcared elected to the Council for the year ending June 1981:

Preisent. . . . . Professor George Branch
Vice-President . . . . . David Freeman
Secretary . . . . . Vacant
Treasurer . . . . . Vacant
Members . . . . . Mr Carlsson
. . . . . Mr Davidson
. . . . . Mrs Davidson
. . . . . Mrs Hawes
. . . . . Mr Millard

For the present, Messrs Freeman and Davidson would act as Secretary and Treasurer respectively, assisted by others as required.

The formal business was then disposed of and Professor Branch gave a fascinating talk on the development of shell shape, size and structure under various environmental influences.

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EXCHANGES WANTED

Members of the British forces stationed in Cyprus would like to establish contacts mainly with a view to buying shells rather than exchanging. Write to J. Robinson & D. Smiley. 'D' Watch S.C.S., 12 SU, B.F.P.O. 53, Cyprus.

Roger Hendrickson, P.O. Box 88411, Honolulu, Hawaii 96815, wants a gem quality speiment of Columbarium eastwoodae.

Mr J. Trondle, B.P. 1853 Papeete, Thaiti, requests contact with members to obtain world wide shells in exchange for Polynesian shells. Is interested in Mitridae.

Wanted: Land Shells. Write to Clarice Connolly, 45 Monton Road, Kenwyn 7764.

John P. Gaffey, 64 Toh Crescent, Singapore 1750, Singapore, collects Cones.

Fernanda Pinto, Trv. de Cadouços 3, 4100 Porto, Portugal, collects Portuguese and worldwide shells and would like to contact members in South Africa.

Robert Haldemann, Brückenstrasse 71, 1253 Ruedersdord, German Democratic Republic, is a teacher of biology at a secondary school and has been collecting shells for three years. He has shells from Germany for exchange.

Matthew Kent, 2028 Hyde Street, San Francisco, Calif 94109, U.S.A., is a beginner who has many California shells to offer in exchange.

S.V. Kenneth E Butler, 447-58-6099, N.M.C.B. 40 "A" Co., F.P.O. San Francisco, Calif. 96601 is asking for contacts to help him start a collection.

John Danard, 153 Portobello Road, London W11, England, would like names and addresses of collectors. He is a beginner.

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CHANGES TO MEMBERS' LIST: SEPTEMBER 1980

Mr R.J. Busby, Bonnie Brook, Hout Bay Road, 7800 Constantia.
Mrs H. Busby, Bonnie Brook, Hout Bay Road, 7800 Constantia.
Mrs Pam Wynne, 72 Belmont Terrace, Port Elizabeth Central 6001.
Mrs Wietske Waterson, 9 Miranda Street, Taybank, 6001 Port Elizabeth.

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Duikerprint, C.T.