Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties.

Note for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.

2. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Bureau. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

1. Name and address of the compiler of this form:

FOR OFFICE USE ONLY.

DD MM YY

Designation date | Site Reference Number

Ms Limpho Motanya, Department of Water Affairs. Ministry of Natural Resources, P O Box 772, Maseru, **LESOTHO**.

2. Date this sheet was completed/updated:

October 2003

3. Country:

LESOTHO

4. Name of the Ramsar site:

Lets`eng - la – Letsie

5. Map of site included:

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps.

a) hard copy (required for inclusion of site in the Ramsar List): *yes* (**X**) -or- *no* □

b) digital (electronic) format (optional): *yes* (**X**) -or- *no* □

6. Geographical coordinates (latitude/longitude):

The area lies between 30º 17´ 02´´ S and 30º 21´ 53´´ S; 28º 08´ 53´´ E and 28º 15´ 30´´ E

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7. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Lets`eng-la-Letsie is situated about 200 km south-east of Maseru, the Capital City of Lesotho, in the Quthing District. The site is just 300 km by road from Maseru. The major village that is closest to the site is Mphaki with a population of 725 people (Bureau of Statistics, Lesotho Population Census village List, 1996). It is close to the border between Lesotho and the Eastern Cape Province of the Republic of South Africa. A border post exists at Ongeluk's Nek, east of the site. The site is located within Lets`eng-la-Letsie Protected Area which also serves as a catchment area measuring 4,139 ha. The Protected Area is part of the Conserving Mountain Biodiversity in Southern Lesotho (CMBSL). The Quthing River, a tributary of the Senqu (Orange) River has its source within the catchment of Lets`eng-la-Letsie. The site is within Maloti Mountains and is therefore part of the Maloti-Drakensberg system.

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8. Elevation: (average and/or max. & min.)

average 2610 m a.s.l

minimum: 2400 m a.s.l
maximum: 2820 m a.s.l

9. Area: (in hectares)

The area of the proposed Ramsar site is 434 ha

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10. Overview:
Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Lets`eng-la-Letsie wetland consists of a human-made lake and the marshy area next/around the lake. The lake has a mean depth of about 1 m. It was created by a small dam constructed on the Mohlakeng River, a major tributary of the Quthing river – one of the major tributaries of the Senqu River (Senqu River becomes the Orange River when it flows through South Africa). The Orange River is shared by Lesotho, South Africa, Botswana and Namibia on its long journey to the Atlantic Ocean west of the southern African sub-continent. The whole catchment was declared a Protected Area in 2001. It shares a border with South Africa in the Eastern Cape Province.

The dominant vegetation types are Afromontane and Afroalpine formations that are dominated by grasses. These are high altitude forms with no trees typical of the Drakensberg-Maloti Mountains. The Drakensberg-Maloti region supports as many as 1750 indigenous plant species many of which are endemic (National Environment Secretariat, 2000; National Environment Secretariat, Unpublished Report, 2002). The area has outstanding scenic beauty.

The site is important in several respects including (i) as source of major tributary of the Senqu-Orange river system (ii) high natural mountain biodiversity and (iii) relatively less disturbed high mountain wetland.

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11. Ramsar Criteria:
Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

12. Justification for the application of each Criterion listed in 11. above:
Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Criterion 1: ***A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.***

Within the southern African subcontinent, highland wetlands are unique to Lesotho (Breen et al, 1997). Lets`eng-la-Letsie is a source of the Quthing River which contributes about 3% of total flow of the Senqu River in Lesotho. Lets`eng-la-Letsie is therefore important for its hydrology. Listing Lets`eng-la-Letsie will most definitely raise awareness about the highland wetlands of Lesotho, many of which are sources or headwaters of critical hydrological systems. It is a representative example of a less - disturbed high altitude wetland.

Criterion 2: ***A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.***

Eight bird species known to occur at Lets`eng-la-Letsie are described as either vulnerable or near- threatened (National Environment Secretariat, Unpublished Report, 2002). They include 7 species categorised as vulnerable (IUCN, 2002): *Gyps coprotheres* (Cape vulture), *Geronticus calvus* (bald ibis), *Grus carunculatus* (wattled crane), *Grus paradisea* (blue crane), *Falco naumanni* (lesser kestrel), *Circus maurus* (black harrier) and *Anthus chloris* (yellow-breasted pipit). The *Pseudobarbus quathlambae* (Maloti minnow), which may occur at the site, is critically endangered (CR) and rare.

Criterion 3: ***A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.***

The Lets`eng-la-Letsie wetland is located within the area of the Maloti-Drakensberg Mountains known as a "biodiversity hotspot" with over 30% endemism (National Environment Secretariat, 2000; National Environment Secretariat, Unpublished Report, 2002).

As far as bird species are concerned, the mountain pipit (*Anthus hoeschi*) is one example of endemic species to this site. Another six species including Bush blackcap (*Lioptilus nigricapillus*), Buff-streaked chat (*Saxicola bifasciata*), Rudd's lark (*Heteromirafra ruddi*), Orange breasted rockjumper (*Chaetops aurantius*) and Drakensberg siskin (*Serinus symonsi*) are near endemic (Hilton-Taylor, 2000).

Out of about 340 bird species that occur in Lesotho (Ambrose, 1998 *in* National Environment Secretariat, 2000) Lets`eng-la-Letsie has 110 species: 74 species described as abundant or common and 36 species described as rare or possibly occuring (National Environment Secretariat, Unpublished Report, 2002).

Ninety-four plant species of Lesotho were listed in the Southern African Red Data List (SABONET, 2003) but the majority of these were described as data deficient. The plants include *Kniphofia northiae, Aloe aristata, Dioscorea sylvatica, Erica dominans, Schizoglossum bidens* and *Schizoglossum stenoglossum*.
The ice rat (*Otomys slogetti*) is the only endemic mammal to the site, while the aquatic river frog (*Rana vertebralis*), under the amphibian kingdom, is also endemic.

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13. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):
Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Lets`eng-la-Letsie is located within the Maloti - Drakensberg. It shares a border with the Maloti Drakensberg Transfrontier Conservation and Development Area**.** There are two dominant vegetation types – Afromontane and Afroalpine. Both are grassland types sharing a few genera.

b) biogeographic regionalisation scheme (include reference citation):

Maluti Drakensberg is an area that has been described as a biodiversity "hot spot" (National Environment Secretariat, Unpublished Report, 2002). The Drakensberg also known as the 'Dragon Mountains' is southern Africa's most impressive mountain range and one of the world's oldest centres of plant endemism (Kingdon,1989).

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14. Physical features of the site:
Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

The proposed Ramsar site is an artificial dam with associated marshes. (see 15 below).

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15. Physical features of the catchment area:
Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

The proposed Ramsar site has an area of 434 ha. It consists of the dam and associated marshes within a catchment area of 4,139 ha. The dam was built in 1968 and was named after Selbourne Letsie of Qomoqomong who was a cabinet minister in the Government of Lesotho. It is located at an altitude of 2400 m (±8000 ft) a.s.l. It is bounded by mountains all round. The catchment is quite clearly demarcated by high mountains that bound the depression in which the wetland is located. The mountains rise as high as 2820 m a.s.l.

Geologically most of the area is dominated by dolerite intrusions. The valley floors including the lake have recent alluvial deposits of the quaternary era (Department of Mines and Geology, 1982). The dominant geological features of the area are basaltic rocks of volcanic origin.

Winters can be extreme with temperatures of -5º C. Snow falls are common in June and July. However, snow, sleet or hail can occur at any time of the year (National Environment Secretariat, Unpublished Report, 2002). Maximum temperatures of 26ºC are recorded in January (Ministry of Natural Resources, 1996). There are, on average, about 240 frost-free days per annum at high and low altitudes respectively. Highest rainfall is recorded at the mountain summits which receive as much as 1000mm per annum. More than 80% of the rainfall is received during summer, October to March. On average, the area receives about 800 mm rainfall per annum.

In May 2001, the Principal Chief of the Area together with the Prime Minister of Lesotho declared the catchment of Lets`eng-la-Letsie as a Protected Area. This declaration still has to be gazetted after passage through parliament. The Protected Area is meant to increase efforts at conserving mountain biodiversity in southern Lesotho.

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16. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

The main hydrological value of the wetland is as a source of the Quthing River, one of the major tributaries of the Senqu (Orange) River. The Quthing River contributes about 3% of the Senqu River in Lesotho.
Being an upland wetland, it is likely to significantly contribute to trapping of sediment from steep slopes surrounding the wetland. No data exists on the extent to which the wetland contributes to trapping of sediment.

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17. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • **N** • O • P • Q • R • Sp • Ss • **Tp** Ts • **U** • **Va** • Vt • W • Xf • Xp • Y • Zg • Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • **6** • 7 • 8 • 9 • Zk(c)

b) Dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

6, U, Tp

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18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, and plant and animal communities present in the Ramsar site.

The area within and around the wetland is heavily overgrazed by livestock. The main vegetation type within the proposed Ramsar site is the Afroalpine grassland with species adapted for very cold winters. Dominant species include *Merxmuellera disticha, Themeda triandra, Poa binta, Harpochloa falx, Eragrostis caesia, E. curvula* and *Pentaschistis galpinii.* Other common species are *Helichrysum flanaganii, H. trilineatum, H. subglomeratum* and *H. marginatum* (National Environment Secretariat, 2000; National Environment Secretariat, Unpublished Reports, 2002). There are no trees within the wetland nor on the mountain slopes. Common shrubs species are *Erica algida, E. dominans, E. frigida* and *Chrysocoma ciliata.*

In a recent survey of the area, no fish have been recorded from the wetland (National Environment Secretariat, Unpublished Report, 2002). However, 9 species of fish are listed as possible or likely to occur in Lets`eng-la-Letsie. Of these, one, *Pseudobarbus quathlambae* (Maloti minnow) is rare and endangered (Skelton, 1987). The other possible or likely to occur fish species are *Onchorhyncus mykiss* (rainbow trout) and *Salmo trutta* (brown trout) which were introduced from Europe. Native species likely to occur include *Labeo capensis* (Orange River mudfish), *Labeo umbratus* (chubby-head barb), *Austroglanis sclateri* (rock catfish or rock barbell) and *Clarias gariepinus* (sharptooth catfish or barbel). Local people report that fish do occur in the lake (Pers. comm.).

The white-breasted cormorant is a fish-eating bird present in the site yet no fish were found in Lets`eng-la-Letsie (National Environment Secretariat, Unpublished Report, 2002). The presence of this fish-eating bird suggests that fish must be present. There are no trees at Lets`eng-la-Letsie to suggest that this could just be a roosting site.

Commonly occurring amphibians include *Rana angolenis* (common river frog), *Rana vertebralis* (aquatic river frog), *Xenopus laevis* (common platana), *Bufo gutturalis* (guttural toad) and *Bufo rangeri* (raucous toad). There are 17 frog/toad species that possibly or are likely to occur at Lets`eng-la-Letsie (National Environment Secretariat, Unpublished Report, 2002). Two amphibians are described as "restricted species" (Branch, 1988). These are *Amietia vertebralis* (aquatic river frog) and *Afrana dracomontana* (Lesotho river frog).

Information on reptiles of Lesotho is not specific to the site. Based on national data, the EIA study by the National University of Lesotho, lists the following as possibly or likely to occur: *Pelomedusa subrufa* (marsh or helmeted terrapin), *Lycodomorphus rufulus* (common brown water snake), *Pseudaspis cana* (mole snake), *Amplorhinus multimaculatus* (many-spotted snake), *Psammophylax rhombeatus* (spotted or rhombic skaapsteker), *Mabuya striata* (striped skink) and *Varanus niloticus* (water monitor) (National Environment Secretariat, Unpublished Report, 2002).

About 110 species of birds have been recorded within the proposed Ramsar site. Other wetland-related birds common in the area are *Phalacrocorax carbo* (white-breasted cormorant), *Ardea cinerea* (grey heron), *Ardea melanocephala* (black-headed heron), *Scopus umbreta* (hamerkop), *Ciconia ciconia* (white stork), *Threskiornis aethiopicus* (sacred ibis), *Bostrychia hagedash* (hadeda ibis), *Tadorna cana* (South African shelduck), *Anas sparsa* (African black duck), *Anas*

erythrorhynca (red-billed teal), *Fulica cristata* (red-knobbed coot), *Tringa nebularia* (green shank), *Calandrella cinerea* (red-capped lark) and *Galerida magnirostris* (thick-billed lark).

19. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

According to the Southern Africa Plant Red Data List of Threatened Plants, the following endangered species may occur in the proposed Ramsar site: *Boophone disticha, Crassula qoatlhambensis, Lotononis stricta* and *Protea caffra caffra.* In addition to these *Sparrmannia ricinocarpa, Protea multibracteata, Protea caffra, Ehrharta longigluma, Anisodontea gracilis, Lotononis listii, Cyathea dregei* and *Aponogeton ranunculiflorus* are described as critically endangered (SABONET, 2003).

20. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

A study by the National Environment Secretariat, (Unpublished Report, 2002) lists 11 mammal species as common or abundant, 50 species as either likely or possible and 16 as having occurred historically in the area. Among these, IUCN Red List of Threatened Species (2002) includes *Alcelaphus buselaphus* (common hartebeest), *Chlorotalpa sclateri* (Sclater's golden mole), *Lutra maculicollis* (speckle-throated otter) and *Ourebia ourebi* (oribi) as vulnerable. Several species listed in the IUCN Red List of Threatened Species are described as historical (National Environment Secretariat, Unpublished Report, 2002).

21. Social and cultural values:

e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

The site is currently used as free access/open property grazing land under the jurisdiction of the Principal Chief of Quthing – Ts'epo Nkuebe. Local villagers listed the following as current uses/benefits from the proposed Ramsar site:

(i) water for livestock and domestic use
(ii) grass for thatching
(iii) livestock grazing
(iv) source of medicinal plants
(v) source of wood
(vi) habitat for wildlife (animals and birds)
(vii) passage to cattle posts
(viii) Fishing

The area was declared a Protected Area in May 2001 by Chief's order with no "human use" but reserved/set aside for conserving biodiversity. At the same occasion the Prime Minister of Lesotho launched the CMBSL project to promote eco-tourism following the Chief's declaration.

22. Land tenure/ownership:
(a) within the Ramsar site:

The land is communally owned under the jurisdiction of the local chiefs. This may change soon once the Protected Area is gazetted.

(b) in the surrounding area:

Public/Communal land.

23. Current land (including water) use:

(a) within the Ramsar site: (includes catchment).

The site is used for :

i. water for livestock and domestic use
ii. grass for thatching
iii. livestock grazing
iv. source of medicinal plants
v. source of wood
vi. habitat for wildlife (animals and birds)
vii. passage to cattle posts
viii. water supply to Quthing river

(b) in the surroundings:

The catchment area is used for grazing cattle, horses, goats and sheep with very high stocking densities. Herd boys make temporary dwellings in the area around the lake. There have been several attempts to improve management of grazing within the area by establishing the Ongeluk's Nek Grazing Association in the mid-seventies, the Ha Sentso farmers Co-operative Society of 1985, and the Mats'eng Brown Swiss Breeders Association. This association was dissolved by Act of Parliament in 1996. There are 18 villages in the vicinity of the proposed Ramsar site with a total population just under 12 000 (National Environment Secretariat, Unpublished Report, 2002). Only one village, Ha Sera is located within the boundaries of the proposed site. These communities practise subsistence farming growing highland maize, wheat and beans while others keep livestock: goats, sheep, cattle, donkeys or horses.

24. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

(a**) within the Ramsar site:**

(i) Overstocking with livestock
(ii) Introduced wildlife that is not compatible with livestock (as competitor for grazing or as predator)
(iii) Overstocking with introduced game animals
(iv) There may be human-wildlife conflicts including poaching

(v) Over-exploited as tourist site.
(vi) Lack of clear government policy on the utilisation of the area
(vii) Conflicting use regimes e.g. grazing vs. biodiversity conservation
(viii) Over-exploitation / over-harvesting of medicinal plants

(b) in the surrounding area:

(i) Overstocking with livestock
(ii) Uncontrolled burning of grass

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25. Conservation measures taken:
List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

The area is currently under communal management under the jurisdiction of the Quthing Principal Chief.

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26. Conservation measures proposed but not yet implemented:
e.g. management plan in preparation; official proposal as a legally protected area, etc.

The proposed Ramsar site is within the 4,139 ha of what has been declared as the Lets`eng-la-Letsie Protected Area. This is proposed to be a protected area of IUCN category II (National Environment Secretariat, Unpublished Report, 2002). The declaration of the area as Protected Area by the Principal Chief of Quthing District and the Prime Minister has yet to be gazetted. The area is not yet legally a protected area.

The CMBSL project has rather ambitious and/or controversial proposals for the use and management of the area as Protected Area including fencing of the entire area, re-introduction of large mammals, construction of tourist facilities such as lodges, game-viewing and hiking trails.

A comprehensive holistic management plan will be required as a matter of urgency. Currently the Wetlands Unit of the Dept of Water Affairs, in collaboration with the local communities around the area is in the process of consultations and negotiations to develop management plans for Lets'eng la Letsie.

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27. Current scientific research and facilities:
e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

One hydrometric station equipped with a water level recorder has been installed, but is currently not operating due to vandalism.

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28. Current conservation education:
e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

None.

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29. Current recreation and tourism:
State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Currently there is low level uncontrolled/unmanaged camping and hiking.

30. Jurisdiction:
Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

The area is currently an open-access communally owned area under the management of Quthing Principal Chief. Livestock grazing management is the responsibility of the Ministry of Agriculture. Once gazetted as a Protected Area, jurisdiction would be in the Ministry of Environment, Tourism and Culture. As a Ramsar site, the area will be managed by the Ministry of Natural Resources. The lowest level of local government for the area is the District of Quthing.

31. Management authority:
Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

The Ministry of Natural Resources is the Management Authority for Wetlands. A Wetland Unit has been set up if the Department of Water Affairs of the same ministry. A National Wetlands Committee has been formed under the leadership of the Wetland Unit of the Department of Water Affairs. The Director of Water Affairs (or a delegated officer) chairs this committee. The contact details are as follows:

Director of Water Affairs
Ministry of Natural Resources
P O Box 772
Maseru
Lesotho
Telephone: +266 22 317516
Telefax: +266 22 310437
Email: director@dwa.gov.ls

32. Bibliographical references:
scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

1. National Environment Secretariat (2000). Biological Diversity in Lesotho: a Country Study. Maseru. 142pp
2. National Environment Secretariat (2002). Environmental Impact Assessment for Fencing and Reintroduction of Large Mammals at Lets`eng-la-Letsie. Unpublished Report. 200 pp.
3. Ministry of Natural Resources (1996). Water Resources Management: Policies and Strategies. Government of Lesotho.
4. Breen, C. M., N. W. Quinn and J. J. Mander (eds) (1997). Wetlands Conservation and Management in Southern Africa. IUCN-ROSA. 164pp
5. SABONET (2003). Southern African Red Data List of Threatened Plant. Southern African Botanical Network.
6. Department of Mines and Geology, 1982. Geological Map of Lesotho.

7. Branch, W. R. (ed). 1988. South African red data book – reptiles and amphibians: a report of the Committee for Nature and Conservation National Program for Ecosystem Research. Pretoria. CSIR Report 151.
8. IUCN, 2002. Red Data of Threatened Species. IUCN, Gland. Switzerland.
9. Skelton, 1987. South African red data book – fishes. Pretoria. CSIR Report 137.
10. Bureau of Statistics, Lesotho Population Census Village List, 1996.
11. Hilton-Tailor, 2000.
12. Kingdon, 1989.

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