Ethnobotanical field studies were conducted for the first time in the KwaNibela Peninsula of southern Maputaland, KwaZulu-Natal, to document indigenous knowledge about useful plants. The vernacular names and uses of 82 plant species were recorded and compared to published Zulu and Swazi knowledge. Medicines for skin disorders, toothache, wounds, worms, chest and throat ailments, infertility and purgatives are still commonly used. Superstition and divination play a major role in the traditional knowledge system of the people of KwaNibela with 24 plants used for this purpose. Three KwaNibela medicinal plants (Erythroxylum delagoense, Putterlickia verrucosa, and Teclea natalensis) appear to be new records, not previously reported in the general scientific literature. The list also includes 61 novel uses of plants and another 15 new variations on known (published) uses. Ten previously unpublished vernacular names are presented, together with an additional 19 new variants of known names. These new additions to the scientific literature confirm that indigenous knowledge in KwaZulu-Natal is not yet completely recorded.

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Keywords: Indigenous knowledge; KwaZulu-Natal; Maputaland; Medicinal plants; Zulu culture

1. Introduction

South Africa is a developing country with a large rural population that relies on natural resources for various purposes such as building, craftwork, foods, cosmetics and medicines. The diversity of ethnic groups in South Africa has given rise to a melting pot of traditional indigenous knowledge, from the boererade of the Afrikaans community and the traditional knowledge of the Khoikoi and San tribes in the Karoo region (Van Wyk et al., 2008), to the traditional knowledge of the Zulu, Xhosa, Basotho and Venda peoples, across the extent of the country.

The KwaZulu-Natal Province is the strong-hold of the isiZulu-speaking ethnic group and, apart from being home to a rich cultural society; KwaZulu-Natal has a wealth of biological diversity with many different and unique biomes. Bantu-speaking tribes were the forerunners of the Nguni cultural groups (Zulu, Xhosa, Swati and Ndebele) and they migrated south into the eastern regions of South Africa from central Africa as early as the eleventh century (Bruton and Cooper, 1980). In 2001, there were 10,677,006 isiZulu-speaking people in South Africa, of which 71% resided in KwaZulu-Natal (StatsSA, 2001). Zulu plant names and their uses have been extensively documented as many rural communities rely heavily on their environment for traditional medicines, food and building materials. Bryant (1966) provided a detailed commentary and account of the ethnobotany and the medicine men of the Zulu tribe. He found that the indigenous knowledge system worked on the premise that the symptom was the ailment and therefore, the symptoms were treated and not necessarily the root cause of the symptoms. The Zulu medicine men had limited knowledge of the anatomy and physiology of the human body. Many of the traditional treatments involved some form of divination and superstitious practices (Kaigh, 1947). The differences between Zulu and Western orthodox medicines are thought to be as result of the differences in the understanding of disease and illness and this is evident in the way in which treatments are administered and superstition is incorporated. Practitioners of Zulu plant use range from the layperson to the herbalists, diviners and traditional doctors and
knowledge is transferred from generation to generation orally (De Wet et al., 2010; Hutchings, 1989).

The KwaNibela Peninsula extends into the northern reaches of Lake St Lucia at the southern extent of Maputaland in northeastern part of KwaZulu-Natal, South Africa (Fig. 1). It is located at 27°56′10.9″S and 32° 26′35.9″E and covers an area of approximately 3690 ha. It borders on the iSimangaliso World Heritage site, which is an area of great biodiversity value and is included in the Maputaland–Pondoland–Albany Biodiversity Hotspot. The area of KwaNibela does not have any formal conservation status and is covered by coastal forest patches interspersed with Maputaland Coastal Belt vegetation (Mucina and Rutherford, 2006).

The peninsula is home to a rural Zulu-speaking community of approximately 4245 people (StatsSA, 2001), unevenly distributed throughout the peninsula in family homesteads and concentrated largely in the northern half of the peninsula. Maize (Zea mays) and papaya (Carica papaya) are the main subsistence crops cultivated and there is a local market at the north of the peninsula. The community is governed by tribal authority and an induna (chief) and there are several izangoma (diviners / traditional healers) that provide traditional medicines and advice to the community using plant and animal species from the forest. The community members also harvest plant species for food (Canthium species, Grewia caffra, Lagynias lasiantha), medicine (Azima tetracantha, Combretum molle, Syzygium cordatum) and building materials (Spirostachys africana, Toddaliopsis bremekampii). According to the induna, Lazarus Mdluli, the present-day KwaNibela people migrated from Swaziland and settled in the peninsula in 1865. This may have had an influence on the local dialect (which is not particularly discernable) and the local traditional knowledge related to plant species. KwaNibela is relatively isolated and certain plant uses may be unique to the peninsula.

The aim of the study was to compare the traditional uses and vernacular names of the most commonly used species in

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**Fig. 1.** Map of the northern part of Lake St Lucia, northeastern KwaZulu-Natal, South Africa, showing the study area (the KwaNibela Peninsula).
KwaNibela with mainstream recorded Zulu uses. While Zulu indigenous knowledge is relatively well recorded (Bryant, 1966; Cunningham, 1988; Gerstner, 1938, 1939, 1941; Hutchings et al., 1996; Hutchings, 1989; Pooley, 1993; Watt and Breyer-Brandwijk, 1962), different areas and different communities may have local variations of the same knowledge system or completely new uses for certain plant species. Documentation of plant use is, therefore, imperative in an area such as this, which has not been studied previously and is at risk of erosion of the indigenous knowledge as rural–urban migration becomes more common. While many young people are settling in KwaNibela, there are growing numbers of the youth leaving the peninsula to seek work in the cities and the ability and, in some cases, interest to learn the traditional knowledge system is lost.

2. Methodology

The survey was conducted in the KwaNibela Peninsula from June 2007 to April 2009. A considerable length of time was needed to become acquainted with a few of the community members, gaining their trust and, finally, enlisting the assistance of five persons as traditional knowledge experts, informants and translators. The first three informants all gained their general knowledge from own experience: Themba Nxumalo (TN), a KwaNibela resident, Stembiso Mduli (SM) and Goodenough translators. The first three informants all gained their general knowledge from own experience: Themba Nxumalo (TN), a KwaNibela resident, Stembiso Mduli (SM) and Goodenough ("Sgwili") Mduli (GM), both sons of the Induna. Sibusiso Falakhe (SF) is a young sangoma who obtained his knowledge from his mother and grandfather, both of whom were izangoma. Mr. Gumede (G) is an elderly sangoma. Translators were used to communicate with the experts, who were not familiar with the English language. Interviews were conducted and the rapid appraisal approach (Martin, 1995) was used to record the uses of plant species. This approach is a bridge between formal surveys and more unstructured methods, such as field observation and interviews and it allows for community participation in a more informal setting. This is often considered more effective in ethnobotanical surveys.

A list of ethnobotanically important KwaZulu-Natal plant species, together with common species in KwaNibela and Maputaland endemic species, was compiled and used during the interview process. Verification of the information was done by indicating the known Zulu name to the expert and asking him to point out the correct plant species from a number of photographs of similar species. Rapid appraisal was used during walks through the forest where the expert/informant was asked to point out important species and indicate the uses thereof. Voucher specimens were collected and are housed at University of Johannesburg Herbarium (JRAU).

Vernacular names and the local uses of 82 plant species were recorded (Table 1). The KwaNibela names and uses were compared to known Zulu and Swazi names and uses by consulting a variety of ethnobotanical sources (including Arnold et al., 2002). A complete comparison between KwaNibela uses and other known uses has been compiled and is available from the authors on request (Corrigan, 2009). The plant species are listed alphabetically in Table 1 by their scientific name, together with family name and local name (in Zulu). Authorities for scientific names are given in Table 1 and are not repeated elsewhere in the text. All the known Zulu names, as listed by RF Raymond in “A glossary of Zulu plant names” (privately published in 2005) and Hutchings et al. (1996), are provided as a basis with which to determine deviations from mainstream Zulu names. Swazi names, as listed in Adeniji et al. (1998) and Dlamini (1981) are also given in order to identify any possible influences, which may corroborate the verbal reports of the KwaNibela people having migrated from Swaziland during the 1860s. The anecdotes or uses, as given by the indicated informants/experts, are recorded exactly as they were described in order to best preserve the accuracy of the information. Personal commentary is indicated in parenthesis. Partially new records are indicated by the superscript and entirely new records are indicated by a.
Table 1: List of anecdotes on traditional names and plant uses in the KwaNjabela Peninsula, St Lucia. Partially new records of vernacular names and plant uses are indicated by the superscript a and entirely new records are indicated by b.

| Species name; family name; vernacular name(s); voucher specimens [BMC] and photographs [DSC] | Known Zulu name(s) [where applicable, Swazi name(s) are indicated by the superscript (S)] | Anecdote or use(s) recorded in Kwanibela | Known Zulu (and Swazi) uses (cited directly from source) |
|---|---|---|---|
| 1. *Acacia karroo* Hayne (Fabaceae); umuNga; isiNga; [BMC125]; [DSC05] | umuNga Rḥ1, uFafa R, uGagu R, istKhombe Rḥ1, isinga ṣ1 (S) | SF: The “skin of the root” (root bark) is ground, infused in water, and sprinkled on the garden to repel snakes. Used for medicinal and magical purposes and has toxic characteristics (Hutchings et al., 1996; Pooley, 1993). The bark is used for many ailments, such as cattle poisoning and stomach ache. It is taken for sorcery-induced ailments (Watt and Breyer-Brandwijk, 1962) and used as an astringent medicine (Gerstner, 1941). The roots are used for colicky babies (Watt and Breyer-Brandwijk, 1962) and general body pains, dizziness, convulsions, venereal diseases, as an aphrodisiac, and to kill parasites in fowl runs or the house (Gelfand et al., 1985). No similar Zulu uses could be found in the literature. In Swaziland, the gum is used for mouth ulcers and throat thrust and is reputed to delay puberty. Bark and leaves are for diarrhea and dysentery (Dlamini, 1981). | Used for medicinal and magical purposes and has toxic characteristics (Hutchings et al., 1996; Pooley, 1993). The bark is used for many ailments, such as cattle poisoning and stomach ache. It is taken for sorcery-induced ailments (Watt and Breyer-Brandwijk, 1962) and used as an astringent medicine (Gerstner, 1941). The roots are used for colicky babies (Watt and Breyer-Brandwijk, 1962) and general body pains, dizziness, convulsions, venereal diseases, as an aphrodisiac, and to kill parasites in fowl runs or the house (Gelfand et al., 1985). No similar Zulu uses could be found in the literature. In Swaziland, the gum is used for mouth ulcers and throat thrust and is reputed to delay puberty. Bark and leaves are for diarrhea and dysentery (Dlamini, 1981). |
| 2. *Acacia robusta* Burch. subsp. clavigera (E. Mey.) Brenan (Fabaceae); umNgamanzi; [DSC07] | umNgamanzi Rḥ1, umnqawe ṣ1 (S); umngamazi ṣ1 (S) | SF: The wood can be used for braai-wood. Used medicinally (Hutchings et al., 1996) and for magical purposes (Pooley, 1993). The bark is used to dispatch snakes (Palmer and Pitman, 1972a). The steam is inhaled for chest complaints, and it can be applied for skin ailments. Roots are poisonous (Pooley, 1993). Used for firewood in Swaziland (Dlamini, 1981). | Used medicinally (Hutchings et al., 1996) and for magical purposes (Pooley, 1993). The bark is used to dispatch snakes (Palmer and Pitman, 1972a). The steam is inhaled for chest complaints, and it can be applied for skin ailments. Roots are poisonous (Pooley, 1993). Used for firewood in Swaziland (Dlamini, 1981). |
| 3. *Acacia xanthophloea* (Fabaceae); umHlosinga; umKhanyagude; [DSC105] | umHlossinga RD, umkhanyagude ṣ1 (S); umHlosinga RD, umKhambathi ṣ1 (S); umKhanyaksude ṣ1, umkhanyaksude ṣ1 (D) | SF: A piece of the bark is ground, infused in water, and the whole body is bathed in the water to ensure that people do not think of you as a bad person (i.e., thief). The root is used to make tonic, taken as a stimulant for seediness or depression, caused by febrile conditions known as “umkhuhlane” (cold/fever/influenza) (Cunningham, 1988; Dlamini, 1981; Hutchings et al., 1996; Pooley, 1993). The bark is used as a protective charm (Gerstner, 1938). | The root is used to make tonic, taken as a stimulant for seediness or depression, caused by febrile conditions known as “umkhuhlane” (cold/fever/influenza) (Cunningham, 1988). The plant is used as a protective charm (Gerstner, 1938). |
| 4. *Adenia gummifera* Harms (Passifloraceae); umPhindumshaye; [BMC215]; [DSC09] | umPhindumshaye ṣ1, imFula ṣ1, imFuda ṣ1, imPinda ṣ1, phindumsehe ṣ1 (S) | SF: Outside of the home, the stem is boiled in water, and the body is steamed and bathed in same water for revenge on enemies. The plant is used to treat sores in Swaziland (Adeniji et al., 1998) and is thought to have magical properties to ward off attacks. Washing in an infusion of bark and roots brings good luck to huntsman (Dlamini, 1981). | Used for medicinal and magical purposes and has toxic characteristics (Cunningham, 1988; Dlamini, 1981; Hutchings et al., 1996; Pooley, 1993). The bark is rubbed on eczema spots after python fat has been applied (Palmer and Pitman, 1972a). The plant is used to treat sores in Swaziland (Adeniji et al., 1998) and is thought to have magical properties to ward off attacks. Washing in an infusion of bark and roots brings good luck to huntsman (Dlamini, 1981). |
| 5. *Afzelia quanzensis* Welw. (Fabaceae); umDlava; [DSC102] | umDlava ṣ1, umHlhaka ṣ1, umHlava ṣ1, inKehi ṣ1, inKeke ṣ1, inKhehi ṣ1, Mokoliki ṣ1 (S); Umbola ṣ1 | SF: The seeds are kept in the wallet for luck with money. | Used for medicinal and magical purposes and has toxic characteristics (Cunningham, 1988; Dalmani, 1981; Hutchings et al., 1996; Pooley, 1993). The bark is rubbed on eczema spots after python fat has been applied (Palmer and Pitman, 1972a). The plant is used to treat sores in Swaziland (Adeniji et al., 1998) and is thought to have magical properties to ward off attacks. Washing in an infusion of bark and roots brings good luck to huntsman (Dlamini, 1981). |
| 6. *Albizia adianthifolia* (Schumach.) W. Wright (Fabaceae); iGowane; [BMC208] | iGowane ṣ1, umBhelehhek ṣ1, umBhele ṣ1, umDlankolothi ṣ1, umGadwenkagu ṣ1, umHlankolothi ṣ1, umNelenelomite ṣ1, umSoki ṣ1 (S); Umkhabamkhombe AD ṣ1 | SF: The leaves are boiled in water and the body is covered over the steam to cure “chicken pox.” | Used for medicinal and magical purposes and has toxic characteristics (Cunningham, 1988; Hutchings et al., 1996; Pooley, 1993; Walker, 1996). The bark and roots are used for eczema and other itching skin complaints (Bryant, 1966). They are also used to make love-charm emetics and enemas administered to pregnant women to clear their urine (Watt and Breyer-Brandwijk, 1962; Pujol, 1990). Taken as sniff for headaches. In Swaziland, the bark and roots are used for skin diseases, scabies, and uterine problems. Leafy twigs are used to treat abscesses (Dlamini, 1981). Stem bark is used for epilepsy, gonorrhoea, and eyesight. (Adeniji et al., 1998; Van Puyvelde et al., 1983). | Used for medicinal and magical purposes and has toxic characteristics (Cunningham, 1988; Hutchings et al., 1996; Pooley, 1993; Walker, 1996). The bark and roots are used for eczema and other itching skin complaints (Bryant, 1966). They are also used to make love-charm emetics and enemas administered to pregnant women to clear their urine (Watt and Breyer-Brandwijk, 1962; Pujol, 1990). Taken as sniff for headaches. In Swaziland, the bark and roots are used for skin diseases, scabies, and uterine problems. Leafy twigs are used to treat abscesses (Dlamini, 1981). Stem bark is used for epilepsy, gonorrhoea, and eyesight. (Adeniji et al., 1998; Van Puyvelde et al., 1983). |

(continued on next page)
7. Albizia versicolor Welw. [Fabaceae]; umPheso ex Oliv. (Fabaceae); SF: To draw out bad luck, the bark is boiled in water and the body is bathed in the water and then the water is thrown out into the river.

8. Acacia nilotica Linn. [Fabaceae]; SF: The leaves are mixed with the roots and taken as purgatives for calves (Gerstein, 1938). Bark is used to ward off evil spirits in Swaziland.

9. Annona senegalensis Pers. [Annonaceae]; SF: The root bark is ground, boiled in water, and used to wash the body to make skin soft.

10. Apodytes dimidiata E.Mey. [Asteraceae]; SF: The leaves are mixed with water and sprinkled around the garden to ward off evil spirits.

11. Azima tetracantha Bakh. [Acanthaceae]; SF: The plant is used to treat toothache.

12. Balanites maughamii [Salvadoraceae]; SF: If you own a tuck-shop, the root bark is used to attract customers.

13. Brachylaena discolor DC. [Asteraceae]; SF: The leaves are used to make an exhilarating bath. Decoction of roots and bark is used for divining and to ward off evil spirits in Swaziland.

14. Brosimum alicastrum DC. [Moraceae]; SF: Bark is used to ward off evil spirits in Swaziland.
made from the leaves to soak feet to relieve pain in the feet.\(^b\)

GM: The fruit is eaten.

Fruit is used medicinally (Dlamini, 1981), and \(R.\) microcarpa is used to treat asthma in Swaziland (Adeni, et al., 1998).

Used for medicinal and magical purposes (Hutchings et al., 1996; Pooley, 1993). Roots are used by traditional healers as a substitute for \(T.\) floribunda in emetics taken to induce trances before divining dances (Geratner, 1941).

The fruit is eaten in Swaziland (Dlamini, 1981).

Used for medicinal purposes (Cunningham, 1988; Hutchings et al., 1996). The leaves are used in a mixture to treat stomach complaints (Bryant, 1966). They are used with milk to treat dysentery and diarrhea.

In Swaziland, the fruit is edible but insipid (Dlamini, 1981).

The plant is used for traditional medicine (possibly for stomach complaints) (Hutchings et al., 1996).

Used for medicinal purposes and has toxic characteristics (Hutchings et al., 1996). The bark is used to treat hemorrhoids (Bryant, 1966), and powdered roots are used as dental anodynes (Watt and Breyer-Brandwijk, 1962). No similar Zulu uses could be found in the literature.

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No similar Zulu uses could be found in the literature. Roots are used as a cleanser and roots and leaves are used medicinally in Swaziland (Dlamini, 1981).

Used for medicinal purposes in Swaziland and the fruit is edible (Dlamini, 1981).

Used for medicinal purposes and has toxic characteristics (Hutchings et al., 1996). Roots are used as dental anodynes (Watt and Breyer-Brandwijk, 1962). No similar Zulu uses could be found in the literature.

No similar Zulu uses could be found in the literature.
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Hutchings Adeniji et al., 1998

Known Zulu name(s) [where applicable, Swazi name(s) are indicated by (S)]

Anecdote or use(s) recorded in Kwanibela

Acanthus or use(s) recorded in Kwanibela

Dalbergia armata E.Mey.

SF: The roots are boiled in water and the water is gargled to relieve toothache. umHluhluwe (Fabaceae; [BMC28]; [DSC36]).

26. Dichrostachys cinerea (L.) Wight & Arn. (Fabaceae; [BMC49]; [DSC37]).

SF: A cutting is planted in the garden to ward off evil spirits.

27. Dialium schlecteri Harms (Erythroxylum delagoense (Burtt Davy) R.H.Archer (Celastraceae); [BMC199]; [DSC28]).

GM: The wood is used to make muzzles for calves to prevent them from suckling (Palmer and Pitman, 1972b).

28. Drimys winteri (L.) De Wild. (Pinaceae; [BMC185]; [DSC42]).

SF: Hunters mix the bark with hot water to clean the tracks of an animal so that it will not detect the hunters.

29. E. divinorum (Gerstner, 5226 PRE). No similar Zulu uses could be found in the literature.

30. E. humeana (Hiern) C.A.C. (Erythroxylaceae; [DSC44]).

E. humeana (Hiern) C.A.C. (Erythroxylaceae; [DSC44]).

31. Endivia amurensis F.Zu. (Araliaceae; [DSC106]).

SF: The berries are given to babies for throat and chest problems.

32. E. macrophylla Willd. (Iridaceae; [BMC123]; [DSC34]).

33. Erythrina crista-galli (L.) L. (Fabaceae; [BMC122]; [DSC28]).

SF: The pods are mixed with water and infused in a mixture for urinary complaints (stone in the bladder) and for venereal diseases (Bryan 1966). Used for carshes. No similar Zulu uses could be found in the literature.

34. E. humeana (Hiern) C.A.C. (Erythroxylaceae; [BMC122]; [DSC28]).

SF: The leaves are used in a mixture for urinary complaints (stone in the bladder) and for venereal diseases (Bryan 1966). Used for carshes. No similar Zulu uses could be found in the literature.

35. E. delagoense (Burtt Davy) R.H.Archer (Celastraceae; [BMC122]; [DSC28]).

No uses are recorded for E. delagoense; however, E. ptychocarpa is used medicinally (Hutchings et al. 1996).

36. E. macrophylla Willd. (Iridaceae; [BMC123]; [DSC34]).

SF: The berries are given to babies for throat and chest problems.

37. E. macrophylla Willd. (Iridaceae; [BMC123]; [DSC34]).

SF: The berries are given to babies for throat and chest problems.

38. E. macrophylla Willd. (Iridaceae; [BMC123]; [DSC34]).

SF: The berries are given to babies for throat and chest problems.

39. E. macrophylla Willd. (Iridaceae; [BMC123]; [DSC34]).

SF: The berries are given to babies for throat and chest problems.

40. E. macrophylla Willd. (Iridaceae; [BMC123]; [DSC34]).

SF: The berries are given to babies for throat and chest problems.

41. E. macrophylla Willd. (Iridaceae; [BMC123]; [DSC34]).

SF: The berries are given to babies for throat and chest problems.

42. E. macrophylla Willd. (Iridaceae; [BMC123]; [DSC34]).

SF: The berries are given to babies for throat and chest problems.

43. E. macrophylla Willd. (Iridaceae; [BMC123]; [DSC34]).

SF: The berries are given to babies for throat and chest problems.

44. E. macrophylla Willd. (Iridaceae; [BMC123]; [DSC34]).

SF: The berries are given to babies for throat and chest problems.

45. E. macrophylla Willd. (Iridaceae; [BMC123]; [DSC34]).

SF: The berries are given to babies for throat and chest problems.

46. E. macrophylla Willd. (Iridaceae; [BMC123]; [DSC34]).

SF: The berries are given to babies for throat and chest problems.
35. *Euclea natalensis* A.DC. subsp. *natalensis* (Ebenaceae); *R*; *isizamane*; *BMC35*; *DSC45*

***Note:** The root bark is an ingredient in decoctions known as *imbhiza* and is taken for scrofulous swellings (*Bryant*, 1966). It is also used as a blood purifier and for stomach disorders. Roots are used in a mixture with other plants and a sharp instrument is used to insert the mixture into the chest skin for pleurisy. They are also used for venereal disease known as drop (urethral discharge) and dysmenorrhea. A strong enema is made from unspecified parts (*Gerstner*, 1939). Bark is used in a mixture to treat urinary tract infections, venereal diseases, and susceptibility to sores. Bark is used for schistosomiasis and protective sprinkling charms. It is mixed with crocodile fat or vaseline and applied to abnormal growths and chancres. The wood is avoided as firewood (*Pooley*, 1993). Used for medicinal and magical purposes and has toxic characteristics (*Dlamini*, 1981; *Hutchings et al.*, 1996). The latex is taken in very small doses as a purgative (*Gerstner*, 1939). The leaves are used as compresses and poultices for wounds, boils, warts, and growths. No similar Zulu uses could be found in the literature.

**SF:** A cutting is planted in the garden to ward off evil spirits.

36. *Euphorbia ingens* E.Mey. ex Boiss. (Euphorbiaceae); *umHlonhlo*; *BMC45*

**SF:** The bark is mixed with cow fat and *imPepo* (*Helichrysum* sp.), burned, and the smoke is inhaled to prevent a person from “falling over suddenly” (fainting).

37. *Ficus natalensis* Hochst. (Moraceae); *umDenda*; *BMC180*

**SF:** A cutting is planted in the garden to ward off evil spirits.

38. *Gardenia comuta* Hemsl. (Rubiaceae); *umHlale*; *BMC49*

**SF:** The bark is mixed with cow fat and *imPepo* (*Helichrysum* sp.), burned, and the smoke is inhaled to prevent a person from “falling over suddenly” (fainting).

39. *Grewia caffra* Meissn. (Tiliaceae); *upatsi*; *BMC33*; *DSC51*

**SF:** The fruit is eaten.

40. *Grewia microphylla* K.Schum. ex Burret (Tiliaceae); *isimthembelwa*; *upatsi*; *BMC86*; *DSC50*

**SF:** The root is boiled in water, removed and the water is taken to make the man’s sperm stronger (enhance male fertility).

41. *Hibiscus cannabinus* L. (Malvaceae); *umKokwe*; *BMC133*

**SF:** The whole plant is boiled to treat “chicken pox.”

42. *Hypoxyxis* species (Hypoxyliaceae); *isikhonyo*

**SF:** Used to treat HIV (method undisclosed).

43. *Kigelia africana* L. (Bignoniaceae); *umVungutu*

**SF:** A cutting is planted in the garden to ward off evil spirits. A young fruit is cut and the “water” (fruit sap) is extracted, the “water” is put into an inflation on the penis and the fruit is removed from the tree when desired size is reached to match penis size.

44. *Lagynias lasiantha* (Sond.) Bullock (Rubiaceae); *umViyoshwane*; *BMC81*; *DSC104*

**SF:** The fruit is eaten.

**GM:** Not used for building—the wood is too weak.

The root bark is an ingredient in decoctions known as *imbhiza* and is taken for scrofulous swellings (*Bryant*, 1966). It is also used as a blood purifier and for stomach disorders. Roots are used in a mixture with other plants and a sharp instrument is used to insert the mixture into the chest skin for pleurisy. They are also used for venereal disease known as drop (urethral discharge) and dysmenorrhea. A strong enema is made from unspecified parts (*Gerstner*, 1939). Bark is used in a mixture to treat urinary tract infections, venereal diseases, and susceptibility to sores. Bark is used for schistosomiasis and protective sprinkling charms. It is mixed with crocodile fat or vaseline and applied to abnormal growths and chancres. The wood is avoided as firewood (*Pooley*, 1993). Used for medicinal and magical purposes and has toxic characteristics (*Dlamini*, 1981; *Hutchings et al.*, 1996). The latex is taken in very small doses as a purgative (*Gerstner*, 1939). The leaves are used as compresses and poultices for wounds, boils, warts, and growths. No similar Zulu uses could be found in the literature.

It is used as lightning protection in Swaziland (*Dlamini*, 1981).

Used for medicinal purposes (*Hutchings et al.*, 1996; *Pooley*, 1993). Bark is used as an ingredient in *imkhwe*, taken during pregnancy to ensure easy childbirth (*Gerstner*, 1941). The roots are taken to cleanse the blood (*Pujol*, 1990). The leaves are used as compresses and poultices for wounds, boils, warts, and growths. No similar Zulu uses could be found in the literature.

Used for medicinal purposes (*Dlamini*, 1981; *Hutchings et al.*, 1996). Infusions from fruits and roots are taken as emetics (*Coates Palgrave*, 1977), and it is planted at homesteads to keep evil spirits away (*Pooley*, 1993).

Used for medicinal purposes (*Hutchings et al.*, 1996). The root bark is used for bladder ailments and in infusions, which are administered as enemas (*Gerstner*, 1939).

No similar Zulu uses could be found in the literature.

Used for medicinal purposes (*Kokwaro*, 1976; *Williams*, 2007). No similar Zulu uses could be found in the literature.

A number of species are reputed to be toxic, although many are eaten and used for HIV treatments (*Hutchings et al.*, 1996).

Used for medicinal and magical purposes and has toxic characteristics (*Cunningham*, 1988; *Dlamini*, 1981; *Hutchings et al.*, 1996; *Liengme*, 1981). The fruit is used as a dressing for ulcers, for syphilis, rheumatism (*Palmer and Pitman*, 1972b), and acne (*Pooley*, 1993). Fruit and bark decoctions are used for children with stomach ailments. Fruit is traditionally used as protective war charms (*Hulme*, 1954). Plant parts are used as purgatives (*Gerstner*, 1938). No similar Zulu uses could be found in the literature.

Used for medicinal purposes (*Hutchings et al.*, 1996; *Walker*, 1996). The powdered leaves are used for diarrhea and dysentery (*Watt and Breyer-Brandwijk*, 1962).

(continued on next page)
| Species name; family name; vernacular name(s); voucher specimens [BMC] and photographs [DSC] | Known Zulu uses (cited directly from source) | Anecdote or use(s) recorded in Kwanibela | Known Zulu (and Swazi) uses (cited directly from source) |
|---|---|---|---|
| Landolphia kirkii Dyer (Apocynaceae); umBungwa; [BMC207]; [DSC57] | SF: The fruit is eaten. If all teeth in the mouth are aching, it is believed to be a sign of an evil spirit. The root is infused in water and the water is gargled to relieve pain. | SF: The leaves are boiled in water and the whole body is covered over the steam to cure fever. TN/SM: The leaves are burned in the fire and the smoke is used to repel mosquitoes. | Roots used for abdominal pain (Gelfand et al., 1985) and as an aphrodisiac (Haerd, 1964). No similar Zulu uses could be found in the literature. |
| Lippia javanica (Burm.f.) Spreng. (Verbenaceae); umSwazi; [BMC101]; [DSC59] | SF: The leaves are mixed with mGanga, boiled and the head is covered over the steam, which is inhaled to avoid bad dreams. TN/SM: The bark and roots are infused in water and taken as a health tonic. | SF: Only birds eat the fruit. No other function is known. | Used for medicinal and magical purposes and has toxic characteristics (Cunningham, 1988; Cunningham and Zondi, 1991; Liengme, 1981). The leaves are used for colds and coughs, to treat pleurisy and asthma, as protection from dogs and crocodiles (Duke and Wink, 1992). Leaves are used in washes and in poultices for chest ailments (Bryant, 1966) and as an infusion for diarrhea (De Wet et al., 2010). Roots are used to treat napkin rash and night terrors in Swaziland (Adeniji et al., 1998). The bark is used for acute inflammatory conditions of the chest and also for dysentery (Watt and Breyer-Brandwijk, 1962). No similar Zulu uses could be found in the literature. |
| Pappaea capensis Eckl. & Zeyh. (Sapindaceae); umQhoqho; [BMC74]; [DSC68] | SF: The leaves are boiled in water and the whole body is covered over the steam to cure fever. | SF: When the sangoma goes to the sea, he/she takes a buffalo tail and cleans the tail with the root. Sangoma is then, taken into the sea by a snake which gives him/her strength and powers. | Used for medicinal and magical purposes and has toxic characteristics (Hutchings et al., 1996; Pooley, 1993). The bark and roots are used as traditional medicine (Cunningham, 1988), and plant parts are used medicinally for calves (Gerstner, 1939). No similar Zulu uses could be found in the literature. |
| Pouteria verrucosa (E. Mey. ex Sonn.) Szymyl. (Celastraceae); umPhambane; [BMC52]; [DSC72] | SF: The leaves are mixed with mGanga, boiled and the head is covered over the steam, which is inhaled to avoid bad dreams. TN/SM: The bark and roots are infused in water and taken as a health tonic. | SF: Only birds eat the fruit. No other function is known. | Used for medicinal and magical purposes and has toxic characteristics (Hutchings et al., 1996; Pooley, 1993). The bark and roots are used as traditional medicine (Cunningham, 1988), and plant parts are used medicinally for calves (Gerstner, 1939). No similar Zulu uses could be found in the literature. |
| Rhoeicissus digitata (L.f.) Gilg & M.Brandt (Vitaceae); isiNwazi; [BMC109]; [DSC73] | GM: The root is boiled and mixed with other plants if someone wants a baby (to enhance fertility). | GM: The root is boiled and mixed with other plants if someone wants a baby (to enhance fertility). | Used for medicinal purposes and has toxic characteristics (Cunningham and Zondi, 1991; Hutchings et al., 1996). The roots are used as traditional medicine (Cunningham, 1988). The common Zulu names suggest that they are probably used during pregnancy to facilitate delivery and for cattle diseases in the same way as R. tomentosa. Roots are used as a stomachic (Liengme, 1981). Used for medicinal purposes and has toxic characteristics (Dlamini, 1981; Hutchings et al., 1996). Milk decoctions of the roots are administered as anthelmintics to calves (Watt and Breyer-Brandwijk, 1962). They may also be used in the same way as R. tridentata to facilitate delivery. |
SF: The root is boiled in water and the water is gargled to treat toothache.

GM: The flowers and only the ends of the stems are eaten. Used for medicinal and magical purposes and has toxic characteristics (Cunningham, 1988; Dlamini, 1981; Pooley, 1993). The root bark is used to make red dye for the sangoma’s cloaks. No similar Zulu uses could be found in the literature.

SF: The bark is boiled in water and removed. One cup of the infusion is taken, followed with 10 l of water to make a person vomit to treat “flu.” Used for medicinal and magical purposes (Cunningham, 1988; Hutchings et al., 1996). The root sap is used for earache (Bryant, 1966). Roots are taken as protective charms after a member of the kraal has been struck by lightning or if a member is thought to have been bewitched (Watt and Breyer-Brandwijk, 1962; Roberts, 1990). No similar Zulu uses could be found in the literature.

Leaves used for treating otitis in Swaziland (Adeniji et al., 1998).

For a runny stomach, an infusion of the bark is taken to stop diarrhea. Beer is made with the fruit.

SF: The leaves are boiled in water and the body is covered over the steam to cure “chicken pox.”

SF: The stem is burned in the fire and put on swollen limb to reduce swelling. The stem is also put on a leech to remove the parasite from the skin. Many uses are known for Senecio species (Hutchings et al., 1996; Watt and Breyer-Brandwijk, 1962).

SF: Known as “red milkwood” in KwaNkula. The root is placed in the anus (suppository) to cure the “fla.”

SF: The fruit is burned on the fire and the smoke is taken into the mouth to take away pain in the teeth. Used for medicinal and magical purposes (Pooley, 1993). Root bark is administered as an enema to produce drastic perspiration (Gerstner, 1941). The root is applied to incisions on a broken limb after Trichilia emetica seed oil has been applied (Palmer and Pitman, 1972c). Bark is used as traditional medicine, especially for eye complaints (Pooley, 1993). No similar Zulu uses could be found in the literature.

Used for medicinal and magical purposes (Cunningham, 1988; Hulme, 1954) and administered as tonics to strengthen the heart (Palmer and Pitman, 1972b). The bark is used to treat healer and patient with destruction of ticks. Twigs are used to make a fire under bath, in which new born girl and mother are washed to ensure the baby is blessed with fertility, softness, tenderness, and early maturity (Palmer and Pitman, 1972b). No similar Zulu uses could be found in the literature.

SF: The plant is burned in the fire, ground and rubbed on the back of a small baby’s head where there is a “red spot.”

SF: Known as “red milkwood” in KwaNkula. The root is placed in the anus (suppository) to cure the “fla.”

SF: The plant is burned in the fire, ground and rubbed on the back of a small baby’s head where there is a “red spot.”
Table 1 (continued)

| Species name; family name | Specimen | Known Zulu (and Swazi) uses (cited directly from source) | Known Zulu name(s) [where applicable, Swazi name(s) are indicated by (S)] |
|---------------------------|----------|--------------------------------------------------------|-----------------------------------------------------------------------|
| Spirostachys africana      |          | SF: An infusion is prepared from the bark and used for wound healing. | umThombothi; Sond. (Euphorbiaceae); injuqu; SF: If you get hit by someone, the blood of the leaf is also used to make porridge. |
|                           |          | Used for medicinal and magical purposes and has toxic characteristics (Cunningham, 1988; De Wet et al., 2010). | RH 63. Strychnos spinosa L. |
69. Teckeia natalensis (Sond.) Engl. (Rutaceae); umOzane; [BMC146]; [DSC93]

70. Tecoma capensis (Thunb.) Spach. (Bignoniaceae); uChacha; [BMC183]; [DSC94]

71. Todalkopnis bremekampii L. Verd. (Rutaceae); umTane

72. Trichilia emetica Vahl (Meliaeaceae); umKhuhi

73. Uvaria caffra E.Mey. ex Sond. (Annonaceae); umMlatuwenda-omnyama; [DSC98]

74. Uvaria lucida Benth. subsp. vires (N.E.Br.) Verde. (Annonaceae); umMlatuwendaomnyama; [BMC18]; [DSC97]

75. Vaccaria infectoria Burch. (Rubiaceae); umVivo; [BMC72]; [DSC99]

76. Warburgia salutaris (G.Bertol.) Chiov. (Canellaceae); isiBaha; [BMC187]

SF: The fruit is given to baby like a sweet to kill worms in the baby’s teeth.

GM: The fruit is eaten by birds. The flower can be sucked for the “sweet water” (nectar).

GM: The timber is used for building.

GM/TN/SM: The fruit added to water and left in the sun to ferment. It makes the water milky and is used to make “small boy” (stokoloshe) from the body.

GM: The root is used as a good luck charm.

SF: The timber is used for building.

GM: The root is used for stomach and intestinal complaints (Adeniji et al., 1998; Pooley, 1993). The bark is used for stomach and intestinal complaints (Bryant, 1966; De Wet et al., 2010). Bark or leaves are used for lumago, rectal ulceration in children and dysentery (Watt and Breyer-Brandwijk, 1962). Seed oil is rubbed into incisions made over a broken limb, together with Sideroxylon inerme (Palmer and Pitman, 1972b). The leaves are worn in burial rituals. It is reported to be very poisonous (Bryant, 1966). No similar Zulu uses could be found in the literature.

In Swaziland, the bulb and bark are used to treat lumago. The bark is used to treat hemorrhia, urethral discharge and abdominal pain. The root is used to treat wounds and the root and bark are used together to treat pregnancy oedema (Adeniji et al., 1998).

Used for medicinal purposes (Hutchings et al., 1996).

Used for medicinal purposes (Hutchings et al., 1996).

SF: The leaves are added to food as a spice to give a peppery taste.

GM: The fruit is used to make amashe. SF: The leaves are put under chickens’ eggs to prevent them from rotting.

GM: The fruit is used to make amashe. SF: The leaves are put under chickens’ eggs to prevent them from rotting.

GM: The fruit is used to make amashe. SF: The leaves are put under chickens’ eggs to prevent them from rotting.

GM: A mixture of the bark and other plants is given to dogs to make them aggressive. SF: For coughs and “flus”, the root bark is ground and boiled for a short time, all the plant material is removed and the water is taken as a drink. Powdered roots are applied inside the holes of the teeth to relieve toothache. If food is not enjoyable, a leaf infusion is taken to enjoy the food. G: The leaves are added to food as a spice to give a peppery taste.
| Species name | Family name | Vernacular name(s) | Zulu name(s) | Kwanibela use(s) |
|--------------|-------------|--------------------|--------------|------------------|
| *Ximenia caffra* Sond. (Olacaceae); *Zanthoxylum capense* (Thunb.) Harv. (Rutaceae); *Ziziphus mucronata* Willd. (Rhamnaceae); *Unidentified species* | | | | |
| *Ximenia caffra* Sond. (Olacaceae); *Zanthoxylum capense* (Thunb.) Harv. (Rutaceae); *Ziziphus mucronata* Willd. (Rhamnaceae); *Unidentified species* | | | | |
| *Unidentified species* | | | | |

**Table 1 (continued)**

| Species name; family name; vernacular name(s); voucher specimens [BMC] and photographs [DSC] | Known Zulu name(s) [where applicable, Swazi name(s) are indicated by (S)] | Anecdote or use(s) recorded in Kwanibela | Known Zulu (and Swazi) uses (cited directly from source) |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------|---------------------------------------------------------|
| 77. *Ximenia caffra* Sond. (Olacaceae); *Zanthoxylum capense* (Thunb.) Harv. (Rutaceae); *Ziziphus mucronata* Willd. (Rhamnaceae); *Unidentified species* | umThunduluka RH; umGwenya RH; uMalala R; uMamatshupho R; umThunduluka-ombomvu R; Umfunguluka A(S); | GM: The fruit is eaten. Used for medicinal and magical purposes and has toxic characteristics (Hutchings et al., 1996; Pooley, 1993). The leaves are used for inflamed eyes (Watt and Breyer-Brandwijk, 1962), and the roots are used as traditional medicine (Cunningham, 1988). The whole plant is used to treat weight loss in Swaziland (Adeniji et al., 1998). | Used for medicinal purposes (Cunningham, 1988; Cunningham and Zondi, 1991; Hutchings et al., 1996; Liengme, 1981; Pooley, 1993; Walker, 1996). The leaves are used to heal sores (Bryant, 1966) and used as an ingredient in purgative parasites and stomach complaints. Roots are used as an ingredient for pleurisy sufferers, infertility and impotency. Root bark is used as an ingredient for pleurisy sufferers, infertility and impotency. Root bark is used as an ingredient for pleurisy sufferers, infertility and impotency. Root bark is used as an ingredient for pleurisy sufferers, infertility and impotency. Root bark is used as an ingredient for pleurisy sufferers, infertility and impotency. Root bark is used as an ingredient for pleurisy sufferers, infertility and impotency. Root bark is used as an ingredient for pleurisy sufferers, infertility and impotency. Root bark is used as an ingredient for pleurisy sufferers, infertility and impotency. Root bark is used as an ingredient for pleurisy sufferers, infertility and impotency. Root bark is used as an ingredient for pleurisy sufferers, infertility and impotency. Root bark is used as an ingredient for pleurisy sufferers, infertility and impotency. Root bark is used as an ingredient for pleurisy sufferers, infertility and impotency. 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purgatives and a few of them required that a mixture of plant species be used.

4. Conclusions

The new medicinal plant uses and vernacular names are valuable contributions to the Zulu ethnobotanical record. The confirmation of some of the known uses and the elaboration of uses of well-documented species are also of value in providing a more complete insight into the patterns of plant use in KwaNibela and in KwaZulu-Natal as a whole. No link between Swazi traditional uses or vernacular names and those of KwaNibela could be established to corroborate the verbal accounts of the KwaNibela people having migrated from Swaziland.

The new species records and new uses of both well-documented and poorly recorded species revealed in this study indicate that the ethnobotanical knowledge of the Zulu ethnic group in Maputaland is incompletely recorded. It is imperative that traditional knowledge systems from relatively isolated populations within South Africa are documented in an attempt to preserve indigenous plant knowledge before it is lost to a changing world.

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