

International Journal of Pharmacy and Pharmacology ISSN: 2326-7267 Vol. 5 (6), pp. 001-050, June, 2016. Available online at www.internationalscholarsjournals.org © International Scholars Journals

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Full Length Research Paper

Healing the body and soul: Traditional remedies for "magical" ailments, nervous system and psychosomatic disorders in Northern Peru

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Accepted 09 February, 2016

Mal aire (bad air), mal viento (bad wind), susto and espanto (fright), mal ojo (evil eye) and envidia (envy) are seen as very common illnesses in Andean society. The Western concept of "psychosomatic disorders" comes closest to characterizing these illnesses. Treatment in many cases involves the participation of the patient in a cleansing ceremony. In addition, patients frequently receive herbal amulets for protection against further evil influences and for good luck. A total of 222 plant species belonging to 172 genera and 78 families were documented and identified as herbal remedies used to treat nervous system problems in Northern Peru. Most species used were Asteraceae, followed by Solanaceae and Lamiaceae. The majority of herbal preparations were prepared from the whole plant. In over 60% of the cases fresh plant material was used to prepare remedies, which differs slightly from the average herbal preparation mode in Northern Peru. Interestingly, only about 36% of the remedies were applied orally, while the majority was applied topically. Over 79% of all remedies were prepared as mixtures with multiple ingredients by boiling plant material either in water or in sugarcane spirit. Little scientific evidence exists to date to prove the efficacy of the species employed as nervous system remedies in Northern Peru. Only 24% of the plants found or related species in the same genus have been studied at all. The information gained on frequently used traditional remedies against nervous system disorders might give some leads for future targets for further analysis in order to develop new drugs addressing nervous system disorders.

Key words: Medicinal plants, ethnobotany, mental health, neurologic disorders, psychopharmacology, etheogens.

INTRODUCTION

Mental, neurological and psychosomatic disorders are highly prevalent on a global scale. The burden of mental health problems has been seriously underestimated. Although neurological problems are only responsible for about 1% of global deaths, they contribute to over 11% of the global disease burden. It is estimated that this share will rise to 15% by 2020 (WHO, 2009). Western medicine often offers little help for patients afflicted by these disorders.

Traditional Medicine is used globally and has rapidly growing economic importance. In developing countries, Traditional Medicine is often the only accessible and affordable treatment available. In Latin America, the WHO Regional Office for the Americans (AMRO/PAHO) reports that 71% of the population in Chile and 40% of the population in Colombia has used Traditional Medicine. In many Asian countries Traditional Medicine is widely used, even though Western medicine is often readily available. In Japan, 60 – 70% of allopathic doctors prescribe traditional medicines for their patients. In the US the number of visits to providers of Complementary Alternative Medicine (CAM) now exceeds by far the number of visits to all primary care physicians (WHO, 1999;

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2002).

Complementary Alternative Medicine is also becoming more and more popular in many developed countries. Forty-two percent of the population in the US have used Complementary Alternative Medicine at least once (WHO, 1998) and a national survey reported the use of at least one of 16 alternative therapies increased from 34% in 1990 to 42% in 1997 (UNCCD, 2000).

The expense for the use of Traditional and Complementary Alternative Medicine is exponentially growing in many parts of the world. The 1997 out-of-pocket Complementary Alternative Medicine expenditure was estimated at US\$ 2.7 billion in the USA. The world market for herbal medicines based on traditional knowledge is now estimated at US\$ 60 billion (Breevort, 1998).

Antecedents - medicinal plant research and traditional medicine in Peru

The primary focus of this project has been the ethnobotany of medicinal plants used in Northern Peru and Southern Ecuador and the changes that have occurred since early colonial times. Fieldwork for the present study was conducted in Northern Peru from 2001 - 2009. Precedents for this study have been established by the late seventeenth-century plant collections of Baltasar Jaime Martínez de Compañón (Bussmann and Sharon, 2006), ethnoarchaeological analysis of the psychedelic San Pedro cactus (Sharon, 2000), curandera depictions in Moche ceramics (Glass-Coffin et al., 2004), and research on the medicinal plants of Southern Ecuador (Bejar et al., 1997, 2001; Bussmann, 2002) used in a field guide to the medicinal plants of the region (Bejar et al., 1997, 2001). Colonial records about useful plants of the region include Acosta (1590), Alcedo (1786 - 1789), Cobo (1653, 1956), Martínez de Compañón (1789), Monardes (1574) and Ruiz (1777 - 1788), all of which have a strong relation to psycho and neurologically active plants.

Considerable progress has been made in the overall taxonomic treatment of the flora of Peru over the last few decades (Brako and Zarucchi, 1993). However, while the Amazon rainforests have received a great deal of scientific attention, the mountain forests and remote highland areas are still relatively unexplored. The first floristic studies were conducted in the 1920's (Valdizan and Maldonado, 1922), followed by decades without any further research activity. Until the late 1990's, little work had been done on vegetation structure, ecology and ethnobotany in the mountain forests and coastal areas of the North.

In spite of the fact that Northern Peru is the locus of what Peruvian anthropologist Lupe Camino (1992) calls the "health axis," that is, the healing center, of the old Central Andean culture area that stretched from Ecuador

to Bolivia, little ethnobotanical research has been published on the rich shamanic lore found there. Early studies focused mainly of the famous "magical" and "mind altering" flora of Peru. A first study on "cimora" - another vernacular name for the San Pedro cactus (Echinopsis pachanoi, incorrectly identified by Cruz Sanchez as Opuntia cylindrica), dates back to the 1940s (Sanchez, 1948). The first detailed study on a hallucinogen in Peru also focused on San Pedro and tree datura (Brugmansia spp.) (Dobkin de Rios, 1968, 1969; Bristol, 1969). A variety of works on these species followed (Crosby and McLaughlin, 1973; Dobkin de Rios, 1977, 1980; Pummangura et al., 1978). Coca (Erythroxylum coca) also attracted early scientific attention (Martin, 1970; Naranjo, 1981; Plowman, 1981, 1984a, b) as did the Amazonian Avahuasca (Banisteriopsis caapi) (Rivier and Lindgren, 1971; McKenna et al., 1986; Schultes and Raffauf, 1992; Bianchi and Samorini, 1993). Chiappe et al. (1985) were the first to attempt an overview on the use of hallucinogens in shamanistic practices in Peru. More comprehensive accounts were provided by Alarco de Zandra (1988), Cabieses (1990) and Schultes and Hofmann (1992). However, Northern Peru and Southern Ecuador, in contrast, had always fallen in the shadow of the more touristically important regions and very few studies had been conducted before the mid-90's (Polia, 1988; Hammond et al., 1998; De Feo, 1992, 2003). Since then our knowledge of the medicinal use of plants in the north has rapidly increased (Bussmann, 2006; Bussmann and Sharon, 2006, 2007; Bussmann et al., 2007).

The traditional use of medicinal plants in this region, which encompasses in particular the Peruvian Departments of Amazonas, Piura, Lambayeque, La Libertad, Cajamarca, and San Martin, as well as the Ecuadorian Province of Loja (Figure 1), dates as far back as the first millennium BC (North coastal Cupisnique culture) or at least to the Moche period (AC 100 - 800, Figure 2), with healing scenes and healers frequently depicted in ceramics (Hoyle, 1948, 2001; McClelland, 1977; Hocquenghem, 1987; Cabieses, 1990, 1993; Bonavia et al., 2004; Honores and Rodriguez, 2007).

Healing altars (mesas) in Northern Peru often follow the old tradition by including a large variety of "power objects," frequently with a "pagan" background. Objects such as seashells, pre-Columbian ceramics, staffs, stones, etc. are very common on Peruvian mesas and are blended with Christian symbols such as crosses and images of saints. Treatments are most often performed in the homes of the individual healers, who normally have their mesas set up in their backyards. Healers also treat patients at altars and consultation chambers (consultorios) in their homes, at sacred sites in the countryside, or at sacred lagoons high up in the mountains. A curing ceremony normally involves purification of the patient by orally spraying blessed and enchanted herbal extracts on the whole body to fend off

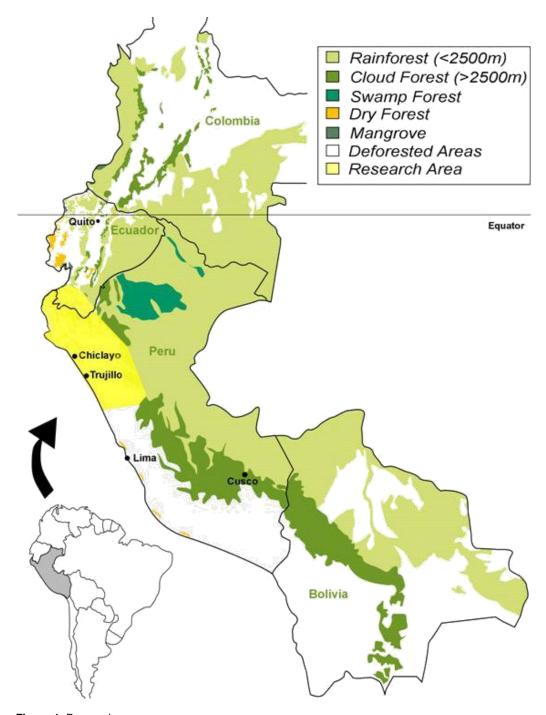


Figure 1. Research area.

evil spirits and by "Spiritual Flowerings" (baños de florecimiento). In most cases, the cleansing of the patients involves drinking boiled San Pedro juice and the nasal ingestion of tobacco juice and perfumes. Sometimes extracts of Jimson weed (Datura ferox), Brugmansia spp., and tobacco are also used to purify the patients. While the incantations used by healers during their curing sessions include Christian components (e.g., the invocation of Christ, the Virgin Mary and number of

saints), references to Andean cosmology (e.g., to the *apus* or the spirits of the mountains) are very common. The use of guinea pigs as diagnostic instruments is standard in Northern Peru (Sharon, 1978, 1980, 1994, 2000; Joralemon and Sharon, 1993).

Mal aire (bad air), mal viento (bad wind), susto and espanto (fright), mal ojo (evil eye) and envidia (envy) are seen as very common illnesses in Andean society. Causes include sudden changes in body temperature,

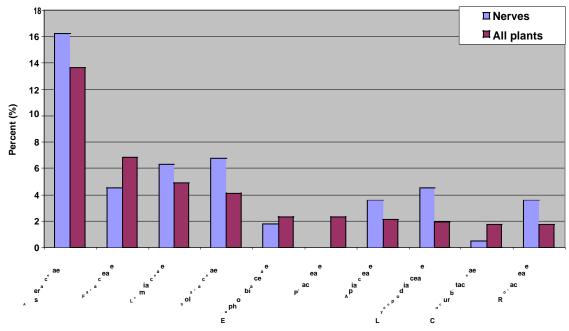


Figure 2. Most important plant families used.

any kind of shock, spells cast by other people, poisoned food, etc. The Western concept of "psychosomatic comes closest to characterizing these illnesses. These illness categories are deeply rooted in Andean society, and Western medicine does offer limited efficient alternatives to traditional treatment. This might explain why this category has still such outstanding importance. Treatment in many cases involved the participation of the patient in a cleansing ceremony or limpia. This could either be a relatively simple spraying with perfumes and holy water, or an allnight ceremony involving the healer's curing altar (mesa). In the days after an all- night ceremony, patients are normally treated with a baño de florecimiento (flowering bath) in order to relieve them of any remaining adversary symptoms or spirits. In addition, patients frequently receive seguros (herbal amulets) for protection against further evil influences and for good luck. Seguros are flasks filled with powerful herbs, as well as perfumes, pictures of saints, and the hair and fingernails of the patient.

The enormous number of plant species used for the treatment of psychosomatic disorders indicates that the *curanderos* of Northern Peru are valued specialists who are consulted mainly for these conditions. This is all the more interesting since Western medicine has still not found efficient treatments for psychosomatic disorders. The plant species used for "magical or ritual" disorders come mostly from the high Andes, especially from the vicinity of sacred lakes, since plants from those regions are regarded as especially powerful. This links the present day curing practices directly to ancient Andean cosmology. The use of purgatives and laxatives, to literally "expel" evil spirits is also very common.

Traditional medicine is also gaining more attention by national governments and health providers. Peru's National Program in Complementary Medicine and the Pan American Health Organization recently compared Complementary Medicine to allopathic medicine in clinics and hospitals operating within the Peruvian Social Security System (EsSalud, 2000). According to WHO (2002), the sustainable cultivation and harvesting of medicinal species is one of the most important challenges for the next few years.

MATERIALS AND METHODS

Plant collections

Plants in Peru were collected in the field, in markets and at the homes of traditional healers (*curanderos*) visited in August-September 2001, July - August 2002, July - August 2003, June-August 2004, July-August 2005, July-August 2006, June-August 2007, June - August 2008, March - April 2009 and June - August 2009 (Figure 1). The specimens are registered under the collection series "RBU/PL," "ISA," "GER," "JULS," "EHCHL," "VFCHL," "TRUBH," and "TRUVANERICA," depending on the year of fieldwork and collection location. Surveys were conducted in Spanish by fluent speakers. Surveyors would approach healers, collectors and market vendors and explain the premise for the study, including the goal of conservation of medicinal plants in the area. All were asked to participate, but due to expected resistance information could not be collected from everyone. From those who gave their prior informed consent, information was collected regarding their knowledge and inventory of medicinal plants.

Vouchers of all specimens were deposited at the Herbario Truxillensis (HUT, Universidad Nacional de Trujillo), and Herbario Antenor Orrego (HAO, Universidad Privada Antenor Orrego Trujillo). In order to recognize Peru's rights under the Convention on Biological Diversity, most notably with regard to the conservation

of genetic resources in the framework of a study treating medicinal plants, the identification of the plant material was conducted entirely in Peru. No plant material was exported in any form whatsoever.

Nomenclature

The nomenclature of plant families, genera, and species follows the Catalogue of the Flowering Plants and Gymnosperms of Peru (Brako and Zarucchi, 1993) and the Catalogue of Vascular Plants of Ecuador (Jørgensen and León-Yanez, 1999). The nomenclature was compared to the TROPICOS database. Species were identified using the available volumes of the Flora of Peru (Macbride, 1936, 1981), as well as Jørgensen and Ulloa Ulloa (1994), Pestalozzi (1998) and Ulloa Ulloa and Jørgensen (1993), and the available volumes of the Flora of Ecuador (Sparre and Harling, 1978 - 2009) and reference material in the herbaria HUT, HAO, QCA, LOJA and QCNE.

RESULTS AND DISCUSSION

A total of 222 plant species belonging to 172 genera and 78 families were documented and identified as herbal remedies used to treat nervous system problems in Northern Peru. Most species used were Asteraceae (36 species, 16.21%), followed by Solanaceae (15 species, 6.76%) and Lamiaceae (14 species, 6.31%) (Table 1). A complete overview of all plants encountered, including data on use-recipes and preparation, is given in Appendix

1. The most important nervous system families are somewhat over-represented in comparison to the overall medicinal flora, while some other medicinally important families (e.g. Poaceae, Cucurbitaceae, Euphorbiaceae) are completely missing or under-represented from the nervous disorder portfolio (Table 2, Figure 2) (Bussmann and Sharon, 2006).

The majority of herbal preparations were prepared from the whole plant (31.56%), while the leaves (24.48%), stems (21.24%) and flowers (8.55%) were used less frequently (Table 3). Whole plants and stems were more often used than characteristic for the overall medicinal preparations found in the region (Figure 3) (Bussmann and Sharon, 2006). This indicates that the local healers count on a very well developed knowledge about the properties of different plant parts. In over 60% of the cases fresh plant material was used to prepare remedies, which differs slightly from the average herbal preparation mode in Northern Peru (Table 4, Figure 4). Interestingly, only about 36% of the remedies were applied orally, while the majority was applied topically (46.65%), often as bath and the remaining ones were used as spiritual safeguard (seguro) (Table 5). This is different from the regional average of application, and underlines the importance of spiritually oriented treatments (Figure 5). Over 79% of all remedies were prepared as mixtures with multiple ingredients by boiling plant material either in water or in sugarcane spirit (Figure 6).

Little scientific evidence exists to date to prove the efficacy of the species employed as nervous system

remedies in Northern Peru. Only 24% of the plants found or related species in the same genus have been studied at all (Figure 7). Apiaceae, however are particularly well al. (1997) documented. López et documented neurophysiological activity in Ammi majus L. seeds. Celery (Apium graveolens L.) is wisely used traditionally and has been found to be neuroactive (Kohli et al., 1967; Kulshrestha et al., 1970; López et al., 1997; Choochote et al., 2004; Tafreshi et al., 2008). Activity against anxiety and stress was found in Coriandrum sativum L. (Emamghoreishi et al., 2005), Centella asiatica (L.) Urb., a species closely related to Hydrocotyle spp. (Brandwein et al., 2000; Veerendra and Kumar, 2003; Ernst, 2006; Saxena and Flora, 2006; Wijeweera et al., 2006; Awad et al., 2007; Corral et al., 2007; Barbosa et al., 2008; Ponnusamy et al., 2008) and Petroselinum sp. (Fejes et al., 1998). Thevetia peruviana (Pers.) K. Schum., frequently employed in Peruvian traditional medicine, was found to be neurotoxic (Gaitondé and Joglekar, 1977; Singh and Singh, 2005). Many members of the sunflower family are known to contain large amounts of Pyrrolizidine alkaloids and are also rich in other interesting compounds. Not surprisingly, Asteraceae are of high medicinal importance. Yarrow (Achillea millefolium L.) showed neurological activity (Molina-Hernandez et al., 2004). Artemisia spp. is the prime source of Artemisinin, now employed as anti-malarial. However, various species were found to be neuroactive and to act as neurotoxicity inhibitors (de Lima, 1993; Ho, 1996; Gharzouli et al., 1999; Claasesn et al., 2001; Haze et al., 2002; Amos et al., 2003; Perazzo et al., 2003; Vermiglio et al., 2004; Oh et al., 2005; Pereira et al., 2005; Salah and Jäger, 2005; Kim et al., 2005, 2007; Lim et al., 2008). Baccharis serrifolia DC. showed neuroactivity (Tortoriello and The neurological Santamaría, 1996). effects Chamomille (Matricaria sp.), in particular its activity as sedative, are well studied (e.g. Newsholme et al., 1984; Avallone et al., 2000; Zanoli et al., 2000; Block et al., 2004; Awad et al., 2007). Mikania sp. (Battacharya and Chaudhuri, 1988), Senecio sp. (Dianova, 1960; Buletsa, 1969; Vos et al., 2002), Gynoxis sp. (Catalano et al., 1993), and Tagetes sp. (Chandhoke and Ghatak, 1969; Marin et al., 1998; Guadarrama-Cruz et al., 2008) have also shown anti-depressant effects.

One of the most widely used and studied neuroactive plant genera is *Hypericum* sp. (St. Johns Wort). Species of this genus are widely used in Peru, and *in vitro* as well as *in vivo* studies have long shown its efficacy (Henderson et al., 2002; Szegedi et al., 2005; Azazieh et al., 2006; Kasper et al., 2006). Similarly important species of Lamiaceae include *Melissa officinalis* (Soulimani et al., 1991; Coleta et al., 2001; Herrera-Ruiz et al., 2008; Huang et al., 2008), *Lavandula* sp. (Azazieh et al., 2008; Kuriyama et al., 2005; Huang et al., 2008; Morgan and Jorm, 2008) and *Origanum majorana* L. (Salah and Jäger, 2005). *Ocimum sanctum* L. has been used in Ayurvedic preparations for millennia, and other

Table 1. Plants used to treat nervous system and psychosomatic ailments in Northern Peru.

Family	Genera	Species	%	Family	Genera	Species	%
Asteraceae	24	36	16.21	Asphodelaceae	1	1	0.45
Solanaceae	9	15	6.76	Balanophoraceae	1	1	0.45
Lamiaceae	9	14	6.31	Cactaceae	1	1	0.45
Fabaceae	9	10	4.5	Capparidaceae	1	1	0.45
Lycopodiaceae	2	10	4.5	Caricaceae	1	1	0.45
Apiaceae	8	8	3.6	Caryophyllaceae	1	1	0.45
Rosaceae	8	8	3.6	Chloranthaceae	1	1	0.45
Rutaceae	3	5	2.25	Chrysobalanaceae	1	1	0.45
Campanulaceae	2	5	2.25	Clethraceae	1	1	0.45
Cypereaceae	4	4	1.8	Crassulaceae	1	1	0.45
Orchidaceae	4	4	1.8	Cucurbitaceae	1	1	0.45
Indet.	4	4	1.8	Elaeocarpaceae	1	1	0.45
Lauraceae	3	4	1.8	Eriocaulaceae	1	1	0.45
Polypodiaceae	3	4	1.8	Erythroxylaceae	1	1	0.45
Valerianaceae	3	4	1.8	Gentianaceae	1	1	0.45
Bromeliaceae	2	4	1.8	Geraniaceae	1	1	0.45
Euphorbiaceae	2	4	1.8	Hippocrateaceae	1	1	0.45
Amaranthaceae	1	4	1.8	Juglandaceae	1	1	0.45
Boraginaceae	3	3	1.35	Lythraceae	1	1	0.45
Apocynaceae	2	3	1.35	Malpighiaceae	1	1	0.45
Caprifoliaceae	2	3	1.35	Melastomataceae	1	1	0.45
Clusiaceae	2	3	1.35	Myricaceae	1	1	0.45
Liliaceae	2	3	1.35	Myristicaceae	1	1	0.45
Bignoniaceae	2	2	0.9	Myrtaceae	1	1	0.45
Burseraceae	2	2	0.9	Nyctaginaceae	1	1	0.45
Ericaceae	2	2	0.9	Oleaceae	1	1	0.45
Malvaceae	2	2	0.9	Onagraceae	1	1	0.45
Poleminiaceae	2	2	0.9	Proteaceae	1	1	0.45
Salicaeeae	2	2	0.9	Rubiaceae	1	1	0.45
Verbenaceae	2	2	0.9	Saxifragaceae	1	1	0.45
Monimiaceae	1	2	0.9	Smilacaceae	1	1	0.45
Aizoaceae	1	1	0.45	Tiliaceae	1	1	0.45
Alstroemeriaceae	1	1	0.45	Ulmaceae	1	1	0.45
Annacardiaceae	1	1	0.45	Urticaceae	1	1	0.45
Araliaceae	1	1	0.45	Violaceae	1	1	0.45
Arecaceae	1	1	0.45	Xyridaceae	1	1	0.45
Aristolochiaceae	1	1	0.45	Zingiberaceae	1	1	0.45
Asclepiadaceae	1	1	0.45			222	99.93

species of the genus have shown neurophysiological efficacy as well (Lahlou et al., 2004; Interaminense et al., 2005; Prakash and Gupta, 2005; Ravindran et al., 2005; Freire et al., 2006). *Salvia* sp. have been closely studied since Salvatorin A was found effective in therapy (Capasso et al., 2006; Cosola et al., 2006; Mora et al., 2006; Herrera-Ruiz et al., 2006; Imanshahidi and Hosseinzadeh, 2006; Vortherms and Roth, 2006).

Chinese Skullcap (Scutellaria baicalensis Georgi) and other species of the genus Scutellaria are employed to

treat memory loss and psychological disorders (Ernst, 2006; Kim et al., 2007; Park et al., 2007; Sarris, 2007). Okuyama et al. (1996) and Singh and Singh (2005) reported on the neurotoxicity of *Jatropa* sp., and Muthu et al. (2006) found neuroactive compounds in *Cyperus* sp. *Sida* sp. (Franco et al., 2005), *Myristica fragrans* Houtt. (Nutmeg et al., 2005; Soanave et al., 2005), *Alchemilla* sp. (Sufka et al., 2001), *Rubus* sp. (Nogueira et al., 1998a,b), *Gardenia* sp. (Toriizuka et al., 2005), *Ruta graveolens* L. (Al-Said et al., 1990), *Passiflora* sp. (Speroni

Table 2. Comparison of nervous system medicines to the 10 most important plant families of the medicinal flora of Northern Peru (Bussmann and Sharon 2006).

Nervous system conditions		Medicinal flora of North Peru		
Family	%	Family	%	
Asteraceae	16.21	Asteraceae	13.64	
Fabaceae	4.5	Fabaceae	6.82	
Lamiaceae	6.31	Lamiaceae	4.87	
Solanaceae	6.76	Solanaceae	4.09	
Euphorbiaceae	1.8	Euphorbiaceae	2.33	
Poaceae	0	Poaceae	2.33	
Apiaceae	3.6	Apiaceae	2.14	
Lycopodiaceae	4.5	Lycopodiaceae	1.95	
Cucurbitaceae	0.45	Cucurbitaceae	1.75	
Rosaceae	3.6	Rosaceae	1.75	

Table 3. Plant parts used.

Plant part	%		
Leaves	24.48		
Whole plant	31.56		
Stems	21.24		
Flowers	8.55		
Seeds	6.49		
Fruit	2.95		
Root	1.75		
Bark	2.06		
Latex	0.29		
Wood	0.59		

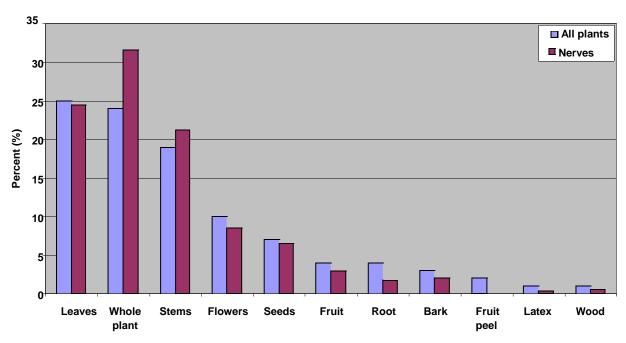


Figure 3. Plant parts used.

Table 4. Plant constitution.

Constitution	%		
Fresh	62.23		
Dry	37.77		

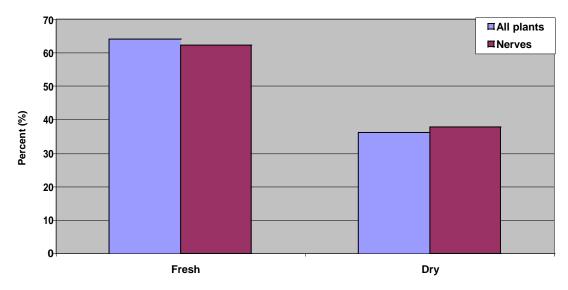


Figure 4. Plant constitution.

Table 5. Method of application.

Application	%
Oral	36.24
Topical	46.65
Seguro	17.11

and Minghetti, 1988; Coleta et al., 2001; Herrera-Ruiz et al., 2008), *Tilia* sp. (Coleta et al., 2001; Barreiro Arcos et al., 2006; Aguirre-Hernández et al., 2007a,b; Herrera-Ruiz, 2008; Pérez-Ortega et al., 2008), *Iresine* sp. (De Feo et al., 1996; Carpasso and De Feo, 2002), *Arctophyllum* sp. (De Feo et al., 1992), and *Aloysia* sp. (Mora et al., 2005; Hellión-Ibarrola et al., 2006) all show anoxiolytic properties.

Many species of clubmoss (*Huperzia* spp.) are used for cleansing baths and as admixtures to hallucinogenic preparations. The bioactivity of their compunds, e.g. Huperzin A has been widely demonstrated (Autore at al., 1994). Members of the citrus family (*Citrus* spp) are well known calmatives (Kawamoto et al., 2005; Lehrner et al., 2005; Imura et al., 2006; Komiya et al., 2006; Pultrini et al., 2006; Yi et al., 2008).

Valeriana spp. is well known and proven antidepressants and is widely used as a mild sedative. (Leathwood et al., 1982; Leathwood and Chauffard, 1985; Dunaev et al., 1987; Leuschner et al., 1993; Santos et al., 1994a,b; Cavadas et al., 1995; Carpasso et al., 1996; Houghton, 1999; Ortiz et al., 1999; Carpasso and De Feo, 2002; De Feo and Faro, 2002; Miyasaka et al., 2006; Awad et al., 2007; Bhattacharya et al., 2007; Fachinetto et al., 2007; Geller and Studee, 2007; Krystal, 2007; Saeed et al., 2007; Wu et al., 2007; Yao et al., 2007; Hattesohl et al., 2008; Tariq and Pulisetty, 2008). The genus is used for the same purpose in Northern Peru.

Lastly, a multitude of species is used in Northern Peru for their psychoactive properties. Traditionally coastal as well as Amazonian cultures employed hallucinogenic snuffs, often derived from *Anadenanthera* sp. or *Virola* sp. (De Smet, 1985; Berenguer, 1987; Torres, 1995, 1996; Torres et al., 1991, 1996). However, the use of hallucinogenic snuffs has all but disappeared from the region (Bussmann and Sharon, 2006, 2009).

Many Solanaceae plants have been used in traditional medicine for millennia, and maintain still high ritual importance. However, in many cases these plants are only used as "plants of last resort", because the local healers are well aware of their toxicity. *Brugmansia* spp. and *Datura* spp. are sometimes added to mixtures of San Pedro cactus and Tobacco juice and inhaled through the nostrils, or are added to cleansing baths. The bioactivity of the alkaloids contained in this species is well documented (Schultes, 1955, 1972a, b,c, 1979; Bristol,

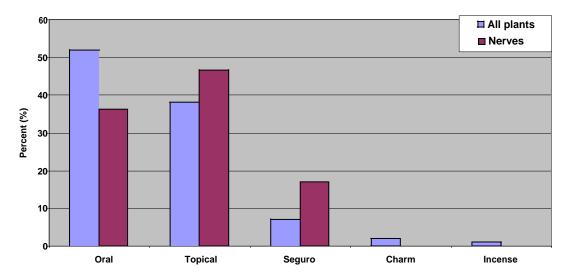


Figure 5. Mode of application.

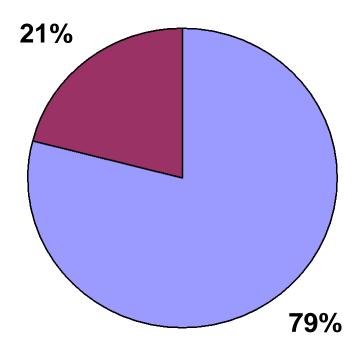




Figure 6. Mode of preparation.

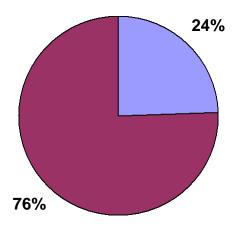
1969; Lockwood, 1979; Roses et al., 1987, 1988a,b; Gambaro and Roses, 1998; Carpasso et al., 1991, 1992,

1996, 1997; Anaya et al., 1999; Griffin and Lin, 2000; Carpasso and De Feo, 2002, 2003). Plowman (1977) reported on the use of *Brunfelsia* sp. as hallucinogens. *Nicotiana tabacum* L. and *N. rustica* L. still have wide ceremonial importance in the Native American as well as Andean communities, and both species can have profound psychoactive effects in high dosage (Pondexter and Carpenter, 1962; Wilbert, 1972, 1987; Janinger and Dobkin de Rios, 1976; Plotkin et al., 1980; Elferink, 1983)

The most widely known neuroactive species in South America is probably the San Pedro cactus (Trichocereus pachanoi Britton and Rose), an ingredient of almost every healing ceremony along the coast between Ecuador and Bolivia and also widely employed in the highlands. Mescaline, the main active compound, has previously been used in western psychotherapy, but was subsequently banned. The effect of San Pedro concoctions or isolated compounds is widely reported (Knauer and Maloney, 1913; Poisson, 1960; Klüver, 1966; Crosby and McLaughlin, 1973; Shulgin, 1973, 1979; Pardannani et al., 1977; Gennaro et al., 1996; Kovar, 1998; Davis, 1983; Bruhn et al., 2002). Ayahuasca (Banisteriopsis caapi (Spruce ex Griseb.) C.V. Morton) however is more widely used for spiritual experiences, and its central nervous system activity is well documented (McKenna et al., 1984; Riba et al., 2002, 2003; Carlini, 2003; Da Silveira, 2005; O'Connor and Roth, 2005; Santos et al., 2007; Frison et al., 2008).

Conclusions

Mental health problems and psychosomatic disorders have an exceptionally high global impact, but western medicine has made limited progress in finding sustainable



Scientific evidence ■ No scientific evidence

Figure 7. Evidence for efficacy.

and effective long term treatments. Many traditional societies employ a combination of medicinal plant mixtures and ceremonial treatments to address such afflictions, often with great success. The information gained on frequently used traditional remedies against nervous disorders might give some leads for future targets for further analysis in order to develop new drugs addressing nervous system disorders. However, more detailed scientific studies are desperately needed to evaluate the efficacy and safety of the remedies employed traditionally.

ACKNOWLEDGEMENTS

The presented study was financed through MIRT (Minority International Research and Training) or MHIRT (Minority Health Disparity International Research and Training) as it was recently renamed, a grant from the National Institutes of Health (Fund, 54112B MHIRT Program, Grant, G0000613), initially administered by the Fogarty International Center for Advanced Studies in Washington, D.C. MHIRT-Peru is coordinated by San Diego State University (SDSU) in cooperation with the San Diego Museum of Man (SDMM), the P.A. Hearst Museum of Anthropology at the University of California Berkeley (PAHMA-UCB), and the University of Hawaii at Manoa in the US and the Universidad Privada Antenor Orrego (UPAO, Herbarium HAO), the Universidad Nacional de Trujillo (UNT, Herbarium HUT and Instituto de Medicina Tropical) and the Clínica Anticona Trujillo (CAT) in Peru. Fieldwork for this project was supported through the assistance of MIRT/MHIRT students Maria Brodine, Gabriel Chait, Christina Dennis, Vanessa Feregrino, Erika Hernández, and Doug Highfill (San Diego State University); Guadalupe Ochoa (San

Francisco State University); Cindy Ko (Cal Tech); Yasmin Barocio, Rosalie Cardenas, Mayra Castro, Ricardo González, Gletys Montoya, and Tamia Souto (University of Hawaii at Manoa); Guy Banner (Utah State University); Taisha Ford, Ana Jones, Alexis Lopez, Jennifer Ly, Ryan Martinez, Tahirah Rasheed, Jaime Sarria, Roberto Silva and Melinda Soriano (University of California, Berkeley). None of the work would have been possible without the invaluable collaboration of our Peruvian colleagues, curanderas Julia Calderón, Isabel Chinguel, and Olinda Pintado, curandero Germán Santisteban, and herbalists Manuel Bejarano, Elmer Cruz, and Iván Cruz. With regard to ritual and therapeutic practices we especially want to thank the above curanderas, as well as curandero Leoncio Carrión.

For three field seasons we were fortunate to have the anthropological expertise of our SDSU colleague Alan Kilpatrick. Project consultants included microbiologists Marisella Aguilera and Doris Diaz; ethnobotanists Pablo Lozano, Jay Chicoin, Carlos Reyes, Jason Schoneman, and Genevieve Gilbreath; biologist Carolina Tellez, and IT specialists John Effio and Steven Skoczen. A special debt of gratitude goes to our dedicated volunteers, Kaye Sharon, Tucker Sharon, and Renee Summerfield.

Thanks also go to Eric Rodriguez (Herbarium Truxillense, HUT) and Abundio Sagastegui, Segundo Leiva, and Mario Zapata (Herbario Antenor Orrego, HAO) for the use of their facilities and assistance in plant identification. The partial support by the Deutsche Forschungsgemeinschaft (DFG) is acknowledged. Most of all, we want to express our sincere gratitude to the people of Northern Peru for sharing their ethnobotanical knowledge.

REFERENCES

Acosta J de (1590). Historia natural y moral de las Indias. Sevilla. Aguirre-Hernández E, Martínez AL, González-Trujano ME, Moreno J, Vibrans H, Soto-Hernández M (2007a). Pharmacological evaluation

of the anxiolytic and sedative effects of *Tilia americana* L. var. *mexicana* in mice. J. Ethnopharmacol., 109(1): 140-175.

Aguirre-Hernández E, Rosas-Acevedo H, Soto-Hernández M, Martínez AL, Moreno J, González-Trujano ME (2007b). Bioactivity-guided isolation of beta-sitosterol and some fatty acids as active compounds in the anxiolytic and sedative effects of *Tilia americana* var. *mexicana*. Planta Medica, 73(11): 1148-1155.

Alarco de Zandra A (1988). Perú, el libro de las plantas mágicas. Concytec, Lima, p. 152.

Alcedo A de (1786-89). *Diccionario* geografico histórico de las indias occidentales o América. Madrid.

Al-Said MS, Tariq M, al-Yahya MA, Rafatullah S, Ginnawi OT, Ageel AM (1990). Studies on *Ruta chalepensis*, an ancient medicinal herb still used in traditional medicine. J. Ethnopharmacol., 28(3): 305-312.

Amos S, Chindo BA, Abbah J, Vongtau HO, Edmond I, Binda L, Akah PA, Wambebe C, Gamaniel KS (2003). Postsynaptic dopamine (D(2))-mediated behavioural effects of high acute doses of artemisinin in rodents. Brain Res. Bull., 62(3): 255-260.

Autore G, Capasso F, De Feo V, De Simone F, Mascolo N (1994). Attività gastrointestinale di *Huperzia* sp. (Lycopodiaceae). Atti del IV Congresso Italo-Latinoamericano di Etnomedicina, Roma, 19-22 settembre 1994, p. 33.

Avallone R, Zanoli P, Puia G, Kleinschnitz M, Schreier P, Baraldi M

- (2000). Pharmacological profile of apigenin, a flavonoid isolated from *Matricaria chamomilla*. Biochem. Pharmacol., 59(11): 1387-1394.
- Awad R, Levac D, Cybulska P, Merali Z, Trudeau VL, Arnason JT (2007). Effects of traditionally used anxiolytic botanicals on enzymes of the gamma-aminobutyric acid (GABA) system. Can. J. Physiol. Pharmacol., 85(9): 933-942.
- Azaizeh H, Saad B, Khalil K, Said O (2006). The State of the Art of Traditional Arab Herbal Medicine in the Eastern Region of the Mediterranean: A Review. Evidence Based Complementary Alternative Med., 3(2): 229-235.
- Barbosa NR, Pittella F, Gattaz WF (2008). *Centella asiatica* water extract inhibits iPLA2 and cPLA2 activities in rat cerebellum. Phytomedicine, 15(10): 896-900.
- Barreiro Arcos ML, Cremaschi G, Werner S, Coussio J, Ferraro G, Anesini C (2006). *Tilia cordata* Mill. Extracts and scopoletin (isolated compound), differential cell growth effects on lymphocytes. Phytotherapr Res., 20(1):34-40.
- Béjar E, Bussmann RW, Roa C, Sharon D (2001). Herbs of Southern Ecuador Hierbas del Sur Ecuatoriano. Latin Herbal Press, San Diego.
- Béjar E, Bussmann RW, Roa C, Sharon D (1997). Pharmacological search for active ingredients in medicinal plants of Latin America. In: Shuman T, Garrett M, Wozniak L (eds) International Symposium on Herbal Medicine, A Holistic Approach. SDSU International Institute for Human Resources Development, San Diego, pp. 63-81.
- Berenguer J (1987). Consumo nasal de alucinogenos en Tiwanaku, una aproximacidn iconogrifica. Boletin del Museo Chileno de Arte Precolombino, 2: 33-53.
- Bhattacharya S, Pal S, Chaudhuri AK (1988). Neuropharmacological studies on *Mikania cordata* root extract. Planta Medica., 54(6): 483-487.
- Bhattacharya D, Jana U, Debnath PK, Sur TK (2007). Initial exploratory observational pharmacology of *Valeriana wallichii* on stress management, a clinical report. Nepal Med. College J., 9(1): 36-39.
- Bianchi Ä, Samorini G (1993). Plants in association with ayahuasca. Jahrbuch für Etnomedizin: pp. 21-42.
- Block KI, Gyllenhaal C, Mead MN (2004). Safety and efficacy of herbal sedatives in cancer care. Integrative Cancer Ther., 3(2): 128-148.
- Bonavia D, Ochoa CM, Tovar SO, Cerrón Palomino R (2004). Archaeological evidence of Cherimoya (*Annona cherimola Mill.*) and Guanabana (*Annona muricata* L.) in ancient Peru. Econ. Bot., 58(4): 509-522.
- Bradwejn J, Zhou Y, Koszycki D, Shlik J (2000). A double-blind, placebo-controlled study on the effects of Gotu Kola (*Centella asiatica*) on acoustic startle response in healthy subjects. J. Clin. Psychopharmacol., 20(6): 680-684.
- Brako L, Zarucchi JL (1993). Catalogue of the Flowering Plants and Gymnosperms of Peru. Missouri Botanical Garden, Saint Louis, MO.
- Breevort P (1998). The Booming U.S. Botanical Market, A New Overview. HerbalGram 44:33-46.
- Bristol ML (1969). Tree Datura drugs of the Colombian Sibundoy. Botanical Museum Leaflets, Harvard University, 22: 165-227.
- Bruhn JG, De Smet PA, El-Seedi HR, Beck O (2002). Mescaline use for 5,700 years. Lancet 359: 1866.
- Buletsa BA (1969). On the facial reflexes of patients with diseases of the nervous system. Zh Nevropatol Psikhiatr Im S S Korsakova 69(5): 689-92.
- Bussmann RW, Sharon D, Lopez A (2007). Blending Traditional and Western Medicine, Medicinal plant use among patients at Clinica Anticona in El Porvenir, Peru. Ethnobot. Res. Appl., 5: 185-199.
- Bussmann RW, Sharon D (2007). Plants of the four winds The magic and medicinal flora of Peru. Plantas de los cuatro vientos La flora mágica y medicinal del Perú. Graficart, Trujillo.
- Bussmann RW (2002). Ethnobotany and Biodiversity Conservation. In Ambasht RS, Ambasht NK (eds) Modern Trends in Applied Terrestrial Ecology, Kluwer, New York, pp. 345-362.
- Bussmann RW (2006). Manteniendo el balance de naturaleza y hombre, La diversidad florística andina y su importancia por la diversidad cultural ejemplos del Norte de Perú y Sur de Ecuador. Arnaldoa 13(2):382-397.
- Bussmann RW, Sharon D (2006). Traditional plant use in Northern

- Peru, Tracking two thousand years of health culture. J. Ethnobiol. Ethnomed. 2: 47.
- Anaya Reyes-Gavilan H, Tacoronte Morales JE, Nogueiras LC, Fuentes FV, Basterrechea Rey M (1999). Determination of main alkaloids present in species of the *Brugmansia* section, gen. *Datura* Rev CENIC, Ciencia Quimica 30:90–91.
- Cabieses Molina F (1993). Apuntes de medicina tradicional, Vols. 1 and 2. Diselpesa, Lima.
- Cabieses Molina F (1990). The Magic Plants of Ancient Peru. Atti del V Congresso Nazionale della Società Italiana di Fitochimica, Ischia.
- Camino L (1992). Cerros, plantas y lagunas poderosas, la medicina al norte de Perú. Lima, Lluvia Editores.
- Capasso A, De Feo V (2002). Central nervous system pharmacological effects of plants from northern Peruvian Andes, *Valeriana adscendens*, *Iresine herbstii* and *Brugmansia arborea*. Pharmaceut. Biol. 40: 274-293.
- Capasso A, De Feo V (2003). Alkaloids from *Brugmansia arborea* (L.) Lagerheim reduce morphine withdrawal in vitro. Phytother. Res. 17(7): 826-829.
- Capasso A, De Feo V, De Simone F, Sorrentino L (1996). Pharmacological effects of aqueous extract from Valeriana adscendens. Phytother. Res. 10: 309-312.
- Capasso A, De Feo V, De Simone F, Sorrentino L (1997). Activity-directed isolation of spasmolytic (anti -cholinergic) alkaloids from *Brugmansia arborea* (L.) Lagerheim. Intl. J. Pharmacog. 35: 43-48.
- Capasso A, Di Giannuario A, Loizzo A, Pieretti S, Sagratella S, Sorrentino L (1996). Dexamethasone selective inhibition of acute opioid physical dependence in isolated tissues. J. Pharmacol. Exper. Ther. 276: 743-751.
- Capasso A, Di Giannuario A, Loizzo A, Pieretti S, Sorrentino L (1991a). Dexamethasone induced biphasic effects on morphine hypermotility in mice. Life Sci. 49: 1411-1418.
- Capasso A, Di Giannuario A, Loizzo A, Pieretti S, Sorrentino L (1992). Central interaction of dexamethasone and RU- 38486 on morphine antinociception in mice. Life Sci. 52: 139-143.
- Capasso A, Pinto A, Mascolo N, Autore G, Capasso F (1991b). Reduction of agonist-induced contractions of guineapig isolated ileum by flavonoids. Phytother. Res. 5: 85-87.
- Capasso R, Borrelli F, Capasso F, Siebert DJ, Stewart DJ, Zjawiony JK, Izzo AA (2006). The hallucinogenic herb *Salvia divinorum* and its active ingredient salvinorin A inhibit enteric cholinergic trans-mission in the guinea-pig ileum. Neurogastroenterol Motil. 18(1): 69-75.
- Carlini EA (2003). Plants and the central nervous system. Pharmacol. Biochem. Behav. 75(3): 501-512.
- Catalano S, Cioni PL, Menichini A, Bilia AR, Morelli I, De Feo V (1993). Kauranoid diterpenes in *Gynoxys oleifolia*. Planta Med. 59: 278-280.
- Cavadas C, Araujo I, Cotrim MD, Amaral T, Cunha AP, Macedo T, Ribeiro CF (1995). In vitro study on the interaction of *Valeriana officinalis* L. extracts and theiramino acids on the GABA receptor in rat brain. Arzneimittelforschung 45: 753-755.
- Chandhoke N, Ghatak BJ (1969). Studies on *Tagetes minuta*, some pharmacological actions of the essential oil. Indian J. Med. Res. 57(5): 864-876.
- Chiappe M, Lemlij M, Millones L (1985). Alucinogenos y Shamanismo en el Peru contemporaneo. El Virrey, Lima.
- Choochote W, Tuetun B, Kanjanapothi D, Rattanachanpichai E, Chaithong U, Chaiwong P, Jitpakdi A (2004). Potential of crude seed extract of celery, *Apium graveolens* L., against the mosquito *Aedes aegypti* (L.) (Diptera, Culicidae). J. Vector Ecol. 29(2): 340-346.
- Classen W, Altmann B, Gretener P, Souppart C, Skelton-Stroud P, Krinke G (1999). Differential effects of orally versus parenterally administered qinghaosu derivative artemether in dogs. Exper. Toxicol. Pathol. 51(6): 507-516.
- Cobo B (1653). Historia del Nuevo Mundo, 2 tomos. Sevilla.
- Cobo B (1956). In: de Mateos, F., (ed) Historia del Nuevo Mundo. Ediciones Atlas, Madrid.
- Coleta M, Campos MG, Cotrim MD, Proença da Cunha A (2001). Comparative evaluation of *Melissa officinalis* L., *Tilia europaea* L., *Passiflora edulis* Sims. and *Hypericum perforatum* L. in the elevated plus maze anxiety test. Pharmacopsychiatry 34(1): 20-21.

- Corral I, Martín-Dávila P, Fortún J, Navas E, Centella T, Moya JL, Cobo J, Quereda C, Pintado V, Morenok S (2007). Trends in neurological complications of endocarditis. J. Neurol. 254(9): 1253-1259.
- Cosola C, Albrizio M, Guaricci AC, De Salvia MA, Zarrilli A, Sciorsci RL, Minoia R (2006). Opioid agonist/antagonist effect of naloxone in modulating rabbit jejunum contractility in vitro. J. Physiol. Pharmacol. 57(3): 439-449.
- Crosby DM, McLaughlin JL (1973). Cactus alkaloids. XIX. Crystallization of mescaline HCl and 3-methoxytyramine HCl from *Trichocerues pachanoi*. Lloydia 36: 416-418.
- Cruz Sánchez G (1948). Informe sobre las aplicaciones populares de la cimora en el norte del Perú. Revista de Farmacol. y Med. Exper., Lima 1: 253-258.
- Da Silveira DX, Grob CS, de Rios MD, Lopez E, Alonso LK, Tacla C, Doering-Silveira E (2005). Ayahuasca in adole-scence, a preliminary psychiatric assessment. J. Psychoact. Drugs, 37(2): 129-33.
- Davis EW (1983). Sacred plants in the San Pedro cult. Botanical Museum Leaflets, Harvard University 29: 367-382.
- De Feo V, Faro C (2002). Pharmacological effects of extracts from Valeriana adscendens Trel. II. Effects on GABA uptake and amino acids. Phytother. Res., 17(6): 661-664.
- De Feo V (2003). Ethnomedicinal field study in northern Peruvian Andes with particular reference to divination practices. J. Ethnopharmacol., 85: 243-256.
- De Feo V (1992). Medicinal and magical plants on northern Peruvian Andes. Fitoterapia, 63: 417-440.
- De Feo V, Capasso A, De Simone F, Sorrentino L (1996). CNS pharmacological effects of aqueous extract from *Iresine herbstii*. Intl. J. Pharmacoq., 34: 184-188.
- De Feo V, della Valle C, De Simone F, Pizza C (1992). Chemical constituents and antimicrobial activity of *Arcytophyllum nitidum* HBK. Annal. Chim., 82: 476-486.
- de Lima TC, Morato GS, Takahashi RN (1993). Evaluation of the central properties of *Artemisia verlotorum*. Planta Med., 59(4): 326-329.
- De Smet PAGM (1985). A multidisciplinary overview of intoxicating snuff rituals in the western hemisphere. J. Ethnopharmacol., 13: 3-49.
- Demetriades AK, Wallman PD, McGuiness A, Gavalas MC (2005). Low cost, high risk, accidental nutmeg intoxication. Emerg. Med. J., 22(3): 223-225.
- Dianova RG (1960). Effect of platyphylline on the activity of certain substances depressing the central nervous system. Farmakol. Toksikol., 23: 106-9.
- Dobkin de Rios M (1968). *Trichocereus pachanoi*, a mescaline cactus used in folk healing uses in Peru. Econ. Bot., 22: 191-194.
- Dobkin de Rios M (1969). Folk curing with a psychedelic cactus in North Coast Peru. Intl. J. Soc. Psych., 15: 23-32.
- Dobkin de Rios M (1977). Plant hallucinogens and the religion of the Mochica, an ancient Peruvian people. Econ. Bot., 31: 189-203.
- Dobkin de Rios M, Cardenas M (1980). Plant hallucinogen, shamanism and Nazca ceramics. J. Ethnopharmacol., 2: 233-246.
- Dunaev VV, Trzhetsinskii SD, Tishkin VS, Fursa NS, Linenko VI (1987). Biological activity of the sum of valepotriates isolated from *Valeriana alliariifolia*. Farmakol. Toksikol. 50: 33-37.
- Elferink JG (1983). The narcotic and hallucinogenic use of tobacco in pre-Columbian Central America. J. Ethnopharmacol., 7: 111-122.
- Emamghoreishi M, Khasaki M, Aazam MF (2005). *Coriandrum sativum*, evaluation of its anxiolytic effect in the elevated plus-maze. J. Ethnopharmacol., 96(3): 365-370.
- Ernst E (2006). Herbal remedies for anxiety a systematic review of controlled clinical trials. Phytomedicine, 13(3): 205-208.
- EsSalud/Organización Panamericana de Salud (2000). Estudio Costo-Efectividad: Programa Nacional de Medicina Complementaria. Seguro Social de EsSalud (Study of Cost-Effectiveness: National Program in Complementary Medicine. Social Security of EsSalud). Lima, EsSalud/Organización Panamericana de Salud (Pan American Health Organization).
- Evans WC (1979). Tropane alkaloids of the Solanaceae. In: Hawkes JG, Lester RN, Shelding AD (eds) The Biology and Taxonomy of Solanaceae. Linnean Society Symposia Series no. 7. Academic Press, London, pp. 245–254.
- Fachinetto R, Villarinho JG, Wagner C, Pereira RP, Avila DS, Burger ME, Calixto JB, Rocha JB, Ferreira J (2007). *Valeriana officinalis*

- does not alter the orofacial dyskinesia induced by haloperidol in rats, role of dopamine transporter. Progress in Neuropsychopharmacol. Biol. Psych. 31(7): 1478-1486.
- Fejes S, Kéry A, Blázovics A, Lugasi A, Lemberkovics E, Petri G, Szöke E (1998). Investigation of the *in vitro* antioxidant effect of *Petroselinum crispum* (Mill.) Nym. ex A. W. Hill. Acta Pharmacologica Hungarica, 68(3): 150-6.
- Fernández Honores AM, Rodrígues Rodríguez EF (2007). Etnobotánica del Perú pre-hispáno. Universidad Nacional Trujillo, Peru.
- Franco CI, Morais LC, Quintans -Júnior LJ, Almeida RN, Antoniolli AR (2005). CNS pharmacological effects of the hydroalcoholic extract of *Sida cordifolia* L. leaves. J. Ethnopharmacol., 98(3): 275-179.
- Freire CM, Marques MO, Cost M (2006). Effects of seasonal variation on the central nervous system activity of *Ocimum gratissimum* L. essential oil. J. Ethnopharmacol., 105(1-2): 161-166.
- Frison G, Favretto D, Zancanaro F, Fazzin G, Ferrara SD (2008). A case of beta-carboline alkaloid intoxication following ingestion of *Peganum harmala* seed extract. Fore. Sci. Intl. 179(2-3): 37-43.
- Gaitonde BB, Joglekar SN (1977). Mechanism of neurotoxicity of cardiotonic glycosides. Br. J. Pharmacol., 59(2): 223-229.
- Gambaro VE, Roses OE (1989). La presencia de nicotina en extractos y decocciones de flores de *Brugmansia candida* Pers. Acta Farm Bonaerense, 8: 17-22.
- Geller SE, Studee L (2007). Botanical and dietary supplements for mood and anxiety in menopausal women. Menopause. 14(3 Pt 1): 541-549.
- Gennaro MC, Gioannini E, Giacosa D, Siccardi D (1996). Determination of mescaline in hallucinogenic Cactaceae by ion-interaction HPLC. Anal. Lett., 29: 2399-2409.
- Gharzouli K, Khennouf S, Amira S, Gharzouli A (1999). Effects of aqueous extracts from *Quercus ilex* L. root bark, *Punica granatum* L. fruit peel and *Artemisia herba-alba* Asso leaves on ethanol-induced gastric damage in rats. Phytother. Res., 13(1): 42-45.
- Glass-Coffin B, Sharon D, Uceda S (2004). Curanderos a la sombra de la Huaca de la luna. Bulletin Institute francaise Etudes andines 33(1): 81-95.
- Griffin WJ, Lin DG (2000). Chemotaxonomy and geographical distribution of tropane alkaloids. Phytochemistry, 53: 623-637.
- Guadarrama-Cruz G, Alarcon-Aguilar FJ, Lezama-Velasco R, Vazquez-Palacios G, Bonilla-Jaime H (2008). Antidepressant-like effects of *Tagetes lucida* Cav. in the forced swimming test. J. Ethnopharmacol. 120(2): 277-281.
- Hammond GB, Fernández ID, Villegas L, Vaisbeerg AJ (1998). Survey of traditional medicinal plants from the Callejón de Huaylas, Department of Ancash, Perú. J. Ethnopharmacol. 61: 17-30.
- Hattesohl M, Feistel B, Sievers H, Lehnfeld R, Hegger M, Winterhoff H (2008). Extracts of *Valeriana officinalis* L. s.l. show anxiolytic and antidepressant effects but neither sedative nor myorelaxant properties. Phytomedicine 15(1-2): 2-15.
- Haze S, Sakai K, Gozu Y (2002). Effects of fragrance inhalation on sympathetic activity in normal adults. Japanese. J. Pharmacol., 90(3): 247-253.
- Hellión-Ibarrola MC, Ibarrola DA, Montalbetti Y, Kennedy ML, Heinichen O, Campuzano M, Tortoriello J, Fernández S, Wasowski C, Marder M, De Lima TC, Mora S (2006). The anxiolytic-like effects of *Aloysia polystachya* (Griseb.) Moldenke (Verbenaceae) in mice. J. Ethnopharmacol. 105(3): 400-408.
- Henderson L, Yue QY, Bergquist C, Gerden B, Arlett P (2002). St John's wort (*Hypericum perforatum*), drug interactions and clinical outcomes. Br. J. Clin. Pharmacol., 54(4): 349-356.
- Herrera-Ruiz M, García-Beltrán Y, Mora S, Díaz-Véliz G, Viana GS, Tortoriello J, Ramírez G (2006). Antidepressant and anxiolytic effects of hydroalcoholic extract from *Salvia elegans*. J. Ethnopharmacol., 107(1): 53-58.
- Herrera-Ruiz M, Román-Ramos R, Zamilpa A, Tortoriello J, Jiménez-Ferrer JE (2008). Flavonoids from *Tilia americana* with anxiolytic activity in plus-maze test. J. Ethnopharmacol., 118(2): 312-317.
- Ho NK (1996). Traditional Chinese medicine and treatment of neonatal jaundice. Singapore Med. J., 37(6): 645-651.
- Hocquenghem AM (1987). Iconografía Mochica. Fondo Editorial de la Pontificia Universidad Católica del Perú, Lima.
- Houghton PJ (1999). The scientific basis for the reputed activity of

- Valerian. J. Pharm. Pharmacol. 51: 505-512.
- Huang L, Abuhamdah S, Howes MJ, Elliot MS, Ballard C, Holmes C, Burns A, Perry EK, Francis PT, Lees G, Chazot PL (2008). Pharmacological profile of essential oils derived from *Lavandula angustifolia* and *Melissa officinalis* with anti-agitation properties, focus on ligand-gated channels. J. Pharm. Pharmacol. 60(11): 1515-1522.
- Imanshahidi M, Hosseinzadeh H (2006). The pharmacological effects of *Salvia* species on the central nervous system. Phytother. Res. 20(6): 427-437.
- Imura M, Misao H, Ushijima H (2006). The psychological effects of aromatherapy-massage in healthy postpartum mothers. J. Midwifery Womens Health 51(2): 1-7.
- Interaminense LF, Leal-Cardoso JH, Magalhães PJ, Duarte GP, Lahlou S (2005). Enhanced hypotensive effects of the essential oil of *Ocimum gratissimum* leaves and its main constituent, eugenol, in DOCA-salt hypertensive conscious rats. Planta Med. 71(4): 376-378.
- Janiger O, Dobkin de Rios M (1976). *Nicotiana*, an hallucinogen? Econ. Bot. 30: 149-151.
- Joralemon D, Sharon D (1993). Sorcery and Shamanism, Curanderos and Clients in Northern Peru. University of Utah Press, Salt Lake City.
- Jørgensen PM, León-Yanez S (1999). Catalogue of the vascular plants of Ecuador. - Monographs in Systematic Botany from the Missouri Botanical Garden p. 75.
- Jørgensen PM, Ulloa Ulloa C (1994). Seed plants of the High Andes of Ecuador a Checklist. AAU Reports 34:1-443.
- Kasper S, Anghelescu I-G, Szegedi A, Dienel A, Kieser M (2006). Superior efficacy of St. John's Wort extract WS® 5570 compared to placebo in patients with major depression, a randomized, doubleblind, placebo-controlled, multi-center trial [ISRCTN77277298] BMC Med. 4: 14.
- Kawamoto R, Murase C, Ishihara I, Ikushima M, Nakatani J, Haraga M, Shimizu J (2005). The effect of lemon fragrance on simple mental performance and psychophysiological parameters during task performance. J. UOEH. 27(4): 305-313.
- Kim DH, Jeon SJ, Son KH, Jung JW, Lee S, Yoon BH, Lee JJ, Cho YW, Cheong JH, Ko KH, Ryu JH (2007). The ameliorating effect of oroxylin A on scopolamine-induced memory impairment in mice. Neurobiol. Learning Memoirs 87(4): 536-546.
- Kim JM, Choi SM, Kim DH, Oh TY, Ahn BO, Kwon JW, Kim WB (2005). Combined use of omeprazole and a novel antioxidative cytoprotectant for the treatment of peptic ulcer. Facilitation of ulcer healing in experimental animals. Arzneimittelforschung. 55(7):387-393.
- Klüver H (1966). Mescal and Mechanisms of Hallucinations. Phoenix Books. The University of Chicago Press, Chicago, pp. 65-80.
- Knauer LA, Maloney WJ (1913). A preliminary note on the psychic action of mescaline with special reference to the mechanism of visual hallucinations. J. Nerv. Mental Disord. 40: 425-436.
- Kohli RP, Dua PR, Shanker K, Saxena RC (1967). Some central effects of an essential oil of *Apium graveolens* (Linn.). Indian J. Med. Res. 55(10): 1099-1102.
- Komiya M, Takeuchi T, Harada E (2006). Lemon oil vapor causes an anti-stress effect via modulating the 5-HT and DA activities in mice. Behav. Brain Res. 172(2): 240-249.
- Kovar KA (1998). Chemistry and pharmacology of hallucinogens, entactogens and stimulants. Pharmacopsychiatry 31 (2): 69-72.
- Krystal AD (2007). Treating the health, quality of life, and functional impairments in insomnia. J. Clin. Sleep Med. 3(1): 63-72.
- Kulshrestha VK, Singh N, Saxena RC, Kohli RP (1970). A study of central pharmacological activity of alkaloid fraction of *Apium* graveolens Linn. Indian J. Med. Res. 58(1): 9-102.
- Lahlou S, Interaminense L de F, Leal -Cardoso JH, Morais SM, Duarte GP (2004). Cardiovascular effects of the essential oil of *Ocimum gratissimum* leaves in rats, role of the autonomic nervous system. Clin. Exper. Pharmacol. Physiol. 31(4): 219-225.
- Larco Hoyle R (1948). Cronología Arqueológica del Norte del Perú. Buenos Aires.
- Larco Hoyle R (2001). Los Mochicas (I and II.) Museo Arqueológico Rafael Larco Herrerra, Lima.
- Leathwood PD, Chauffard F (1985). Aqueous extract of valerian reduces latency to fall asleep in man. Plant. Med. 51: 144-147.

- Leathwood PD, Chauffard F, Heck E, Munoz-Box R (1982). Aqueous extract of valerian (*Valeriana officinalis*) improves sleep quality in man. Pharmacol. Biochem. Behavior., 17: 65-72.
- Lehrner J, Marwinski G, Lehr S, Johren P, Deecke L (2005). Ambient odors of orange and lavender reduce anxiety and improve mood in a dental office. Physiol. Behav., 86(1-2): 92-95.
- Leuschner J, Müller J, Rudmann M (1993). Characterization of central nervous depressant activity of commercially available valerian root extract. Arzneimittelforschung, 43: 638-641.
- Lim BO, Chung HG, Lee WH, Lee HW, Suk K (2008). Inhibition of microglial neurotoxicity by ethanol extract of *Artemisia asiatica* Nakai. Phytother. Res., 22(2): 279-282.
- Lockwood TE (1979). The ethnobotany of *Brugmansia*. J. Ethnopharmacol., 1:147-164.
- López TA, Campero CM, Chayer R, de Hoyos M (1997). Ergotism and photosensitization in swine produced by the combined ingestion of *Claviceps purpurea* sclerotia and *Ammi majus* seeds. J. Vet Diagn. Invest., 9(1): 68-71.
- Marin RH, Garcia DA, Martijena ID, Zygadlo JA, Arce A, Perillo MA (1998). Anxiogenic-like effects of *Tagetes minuta* L essential oil on T-maze and tonic immobility behaviour in domestic chicks. Fundamentals Clin. Pharmacol., 12(4): 426-432.
- Martínez Compañon DB (1789). Razon de las especies de la naturaleza y del arte del obispado de Trujillo del Perú. Vol. III-V.
- Marles RJ (1988). Ethnopharmacology of the lowland Quichua of Eastern Ecuador. Ph.D. dissertation, University of Illinois at Chicago.
- Martin RT (1970). The role of coca in the history, religion, and medicine of South American Indians. Econ. Bot., 24: 422-438.
- McBride JF (ed) (1938–1981). Flora of Peru. Fieldiana, Botany. Field Museum of Natural History, Chicago.
- McClelland D (1977). The Ulluchu A Moche Symbolic Fruit. In: Cordy-Collins A, Stern J (eds) Pre-Columbian Art History. Peek Publications, Palo Alto, pp.435-452.
- McKenna DJ, Towers GHN, Abbott F (1984). Monoamine oxidase inhibitors in South American hallucinogenic plants, tryptamine and beta-carboline constituents of ayahuasca. J. Ethnopharmacol., 10: 195-223
- McKenna DJ, Luna LE, Towers CHN (1986). Ingredientes biodinamicos en las plantas que se mezclan al ayahuasca. Una farmacopea tradicional no identificada. Am. Indig., 46: 73-98.
- Miyasaka LS, Atallah AN, Soares BG (2006). Valerian for anxiety disorders. Cochrane Database Syst. Rev.
- Molina-Hernandez M, Tellez-Alcantara NP, Diaz MA, Perez Garcia J, Olivera Lopez JI, Jaramillo MT (2004). Anticonflict actions of aqueous extracts of flowers of *Achillea millefolium* L. vary according to the estrous cycle phases in Wistar rats. Phytother. Res., 18(11): 915-920.
- Monardes N (1574). Primera y segunda y tercera partes de la história medicinal de las cosas que se traen de nuestras Indias Occidentales, que sirven en medicina; Tratado de la piedra bezaar, y dela yerva escuerçonera; Diálogo de las grandezas del hierro, y de sus virtudes medicinales; Tratado de la nieve, y del beuer frio. Sevilla, Alonso Escribano.
- Mora S, Díaz-Véliz G, Millán R, Lungenstrass H, Quirós S, Coto-Morales T, Hellión-Ibarrola MC (2005). Anxiolytic and antidepressantlike effects of the hydroalcoholic extract from *Aloysia polystachya* in rats. Pharmacol. Biochem. Behavior., 82(2): 373-378.
- Mora S, Millán R, Lungenstrass H, Díaz-Véliz G, Morán JA, Herrera-Ruiz M, Tortoriello J (2006). The hydroalcoholic extract of *Salvia elegans* induces anxiolytic- and antidepressant-like effects in rats. J. Ethnopharmacol., 106(1): 76-81.
- Morgan AJ, Jorm AF (2008). Self-help interventions for depressive disorders and depressive symptoms, a systematic review. Ann. Gen. Psych., 7: 13.
- Naranjo P (1981). Social function of coca in pre-Columbian America. J. Ethnopharmacol., 3: 161-172.
- Newsholme SJ, Kellerman TS, Welman WG (1984). Pathology of a nervous disorder (pushing disease or "stootsiekte") in cattle caused by the plant *Matricaria nigellifolia* DC. (Asteraceae). Onderstepoort J. Vet. Res., 51(2): 119-127.
- Nogueira E, Rosa GJ, Haraguchi M, Vassilieff VS (1998a). Anxiolytic effect of *Rubus brasilensis* in rats and mice. J. Ethnopharmacol.,

- 61(2): 111-117.
- Nogueira E, Rosa GJ, Vassilieff VS (1998b). Involvement of GABA(A)-benzodiazepine receptor in the anxiolytic effect induced by hexanic fraction of *Rubus brasiliensis*. J. Ethnopharmacol., 61(2): 119-126.
- O'Connor KA, Roth BL (2005). Screening the receptorome for plant-based psychoactive compounds. Life Sci., 78(5): 506-511.
- Oh TY, Ahn GJ, Choi SM, Ahn BO, Kim WB (2005). Increased susceptibility of ethanol-treated gastric mucosa to naproxen and its inhibition by DA-9601, an *Artemisia asiatica* extract. World J. Gastroenterol., 11(47): 7450-7456.
- Okuyama E, Okamoto Y, Yamazaki M, Satake M (1996). Pharmacologically active components of a Peruvian medicinal plant, huanarpo (*Jatropha cilliata*). Chem. Pharmacol. Bull. (Tokyo), 44(2): 333-336.
- Ortiz JG, Nieves-Natal J, Chavez P (1999). Effects of *Valeriana officinalis* extracts on [3H]flunitrazepam binding, synaptosomal [3H]GABA uptake, and hippocampal [3H]GABArelease. Neurochem. Res., 24: 1373-1378.
- Pardanani JH, McLaughlin JL, Kondrat RW, Cooks RG (1977). Cactus alkaloids. XXXVI. Mescaline and related compounds from *Trichocereus peruvianus*. Lloydia, 40: 585-590.
- Park HG, Yoon SY, Choi JY, Lee GS, Choi JH, Shin CY, Son KH, Lee YS, Kim WK, Ryu JH, Ko KH, Cheong JH (2007). Anticonvulsant effect of wogonin isolated from *Scutellaria baicalensis*. Eur. J. Pharmacol., 574(2-3): 112-119.
- Perazzo FF, Carvalho JC, Carvalho JE, Rehder VL (2003). Central properties of the essential oil and the crude ethanol extract from aerial parts of *Artemisia annua* L. Pharmacol. Res., 48(5): 497-502.
- Pereira P, Tysca D, Oliveira P, da Silva Brum LF, Picada JN, Ardenghi P (2005). Neurobehavioral and genotoxic aspects of rosmarinic acid. Pharmacol. Res., 52(3): 199-203.
- Pérez-Ortega G, Guevara-Fefer P, Chávez M, Herrera J, Martínez A, Martínez AL, González-Trujano ME (2008). Sedative and anxiolytic efficacy of *Tilia americana* var. *mexicana* inflorescences used traditionally by communities of State of Michoacan, Mexico. J. Ethnopharmacol., 116(3): 461-468.
- Pestalozzi HU (1998). Flora ilustrada altoandina. Herbario Nacional de Bolivia and Herbario Forestal Nacional Martín Cardenas, Cochabamba.
- Plotkin MJ, Mittermeier RA, Costable I (1980). Psychotomimetic use of tobacco in Surinam and French Guiana. J. Ethnopharmacol., 2: 295-297.
- Plowman T (1977). *Brunfelsia* in ethnomedicine. Botanical Musaum Leaflets 25: 289-320.
- Plowman T (1981). Amazonian coca. J. Ethnopharmacol., 3: 195-225. Plowman T (1984a). The ethnobotany of coca (*Erythroxylum* spp.,
- Erythroxylaceae). Advances Econ. Bot., 1: 62-111.
- Plowman T (1984b). The origin, evolution, and diffusion of coca, Erythroxylum spp., in South and Central America. Papers Peabody Museum Archaeol. Ethnol., 76: 125-163.
- Poindexter EH, Carpenter RD (1962). Isolation of harmane and nor-harmane from cigarette smoke. Chem. Ind., 26(1): 176.
- Poisson J (1960). The presence of mescaline in a Peruvian cactus. Annales Farmaceutiques Françaises 18: 764-765.
- Polia M (1988). Las Lagunas de los Encantos. Medicina Tradicional Andina en el Peru septentrional. Club Grau, Ce.Pe.Cer., Lima.
- Ponnusamy K, Mohan M, Nagaraja HS (2008). Protective antioxidant effect of *Centella asiatica* bioflavonoids on lead acetate induced neurotoxicity. Med. J. Malaysia, 63(A): 102.
- Prakash P, Gupta N (2005). Therapeutic uses of *Ocimum sanctum* Linn (Tulsi) with a note on eugenol and its pharmacological actions, a short review. Indian J. Physiol. Pharmacol., 49(2): 125-131.
- Pultrini Ade M, Galindo LA, Costa M (2006). Effects of the essential oil from Citrus aurantium L. in experimental anxiety models in mice. Life Sci., 78(15): 1720-1725.
- Pummangura S, McLaughlin JL, Schiffendecker RC (1982). Cactus alkaloids. Ll. Lack of mescaline traslocation in grafted *Trichocereus*. J. Nat. Prod., 45: 215-216.
- Ravindran R, Rathinasamy SD, Samson J, Senthilvelan M (2005). Noise-stress-induced brain neurotransmitter changes and the effect of *Ocimum sanctum* (Linn) treatment in albino rats. J. Pharmacol. Sci., 98(4): 354-60.

- Riba J, Anderer P, Morte A, Urbano G, Jané F, Saletu B, Barbanoj MJ (2002). Topographic pharmaco-EEG mapping of the effects of the South American psychoactive beverage ayahuasca in healthy volunteers. Br. J. Clin. Pharmacol., 53(6): 613-628.
- Riba J, Valle M, Urbano G, Yritia M, Morte A, Barbanoj MJ (2003). Human pharmacology of ayahuasca, subjective and cardiovascular effects, monoamine metabolite excretion, and pharmacokinetics. J. Pharmacol. Exper. Ther., 306(1): 73-83.
- RivierL, Lindgren JE (1972). Ayahuasca, the South American Hallucinogenic drink, an ethnobotanical and chemical investigation. Econ. Bot., 26: 101-129.
- Roses OE, Gambaro VE, Rofi R (1988a). La presencia de norhioscina y hioscina en flores de *Brugmansia candida* Pers. como posible caracteristica de su procedencia. Acta Farmacol. Bonaerense 7: 85-90.
- Roses OC, Villaamii EE, Garcia Fernandez JC, Miño JH (1988b). Accion farmacodinamica de las flores de la *Brugmansia candida*. Fitoterapia 59: 120-125.
- Roses OE, Lopez CM, Garcia Fernandez JC (1987). Aislamiento e identificación de alcaloides del tropano en especies del género Brugmansia (Solanaceae). Acta Farmacologica Bonaerense 6: 167-174.
- Ruiz H (1998). Relación del viaje hecho a los reynos del Perú y Chile 1777-1788. Translated by Schultes ER, Nemry von Thenen de Jaramillo-Arango MJ as "The Journals of Hippólito Ruiz, Portland, Timber Press.
- Saeed SA, Bloch RM, Antonacci DJ (2007). Herbal and dietary supplements for treatment of anxiety disorders. Am. Family Phys., 76(4): 549-556.
- Salah SM, Jäger AK (2005). Screening of traditionally used Lebanese herbs for neurological activities. J. Ethnopharmacol. 97(1): 145-149.
- Santos MS, Ferreira F, Cunha AP, Carvalho AP, Macedo T (1994a). Aqueous extract of Valerian influences the transport of GABA in synaptosomes. Planta Med., 60: 278-279.
- Santos MS, Ferreira F, Faro C, Pires E, Carvalho AP, Cunha AP, Macedo T (1994b). The amount of GABA present in aqueous extract of Valerian is sufficient to account for [3H]GABA release in synaptosomes. Planta Med., 60: 475-476.
- Santos RG, Landeira-Fernandez J, Strassman RJ, Motta V, Cruz AP (2007). Effects of ayahuasca on psychometric measures of anxiety, panic-like and hopelessness in Santo Daime members. J. Ethnopharmacol., 112(3): 507-513.
- Sarris J (2007). Herbal medicines in the treatment of psychiatric disorders, a systematic review. Phytother. Res., 21(8): 703-716.
- Saxena G, Flora SJ (2006). Changes in brain biogenic amines and haem biosynthesis and their response to combined administration of succimers and *Centella asiatica* in lead poisoned rats. J. Pharm. Pharmacol. 58(4): 547-559.
- Schultes RE (1955). A new narcotic genus from the Amazon slope in the Colombian Andes. Botanical Museum Leaflets, Harvard University, 17:1-11.
- Schultes RE (1972a). An overview of hallucinogens in western hemisphere. In, Furst, P. (Ed.), Flesh of the Gods, The Ritual Use of Hallucinogens. Praeger, New York, pp. 3-54.
- Schultes RE (1972b). De Plantis toxicariis de Mundo Novo commentationes. XI. The ethnobotanical significance of additives to New World hallucinogens. Plant Sci. Bull., 18:34-41.
- Schultes RE (1972c). De Plantis Toxicariis e Mundo Novo Commentationes. X. New data on the Malpighiaceous narcotics of South America. Botanical Museum Leaflets, Harvard University, 23: 137-147.
- Schultes RE (1979). Solanaceous hallucinogens and their role in the development of the new world cultures. In: Hawkes, JG, Lester RN, Shelding AD (eds) The Biology and Taxonomy of Solanaceae. London, Academic Press, pp. 137-160.
- Schultes RE, Hofmann A (1992). Plants of the Gods, Their Sacred, Healing, and Hallucinogenic Powers. Healing Arts Press, Rochester.
- Schultes RE, Raffauf R (1992). Vine of the Soul. Synergetic Press, Oracle, Arizona, 1992.
- Sharon D, Bussmann RW (2006). Plantas Medicinales en la Obra del Obispo Don Baltasar Jaime Martínez Compañon (Siglo XVIII). In: Millones L, Kato T (eds) Desde el exterior, El Perú y sus estudios.

- Tercer Congreso Internacional de Peruanistas, Nagoya, UNMSM, FEFCS, Lima, pp. 147-165.
- Sharon D (1972). The San Pedro cactus in Peruvian folk healing. In: Furst P (ed) Flesh of the Gods, The Ritual Use of Hallucinogens. Praeger, New York, pp. 114-135.
- Sharon D (1978). Wizard of the Four Winds, A Shaman's Story. Free Press, New York.
- Sharon D (19800). El Chamán de los Cuatro Vientos. Siglo veintiuno editores, México, D.F.
- Sharon D (1994). Tuno y sus colegas, notas comparativas. In: Millones L, Lemlij M (eds) En el Nombre del Señor, Shamanes, demonios y curanderos del norte del Perú. Australis S.A., Lima, pp.128-147.
- Sharon D (2000). Shamanismo y el Cacto Sagrado Shamanism and the Sacred Cactus. San Diego Museum Papers p. 37.
- Shulgin AT (1973). Mescaline, the chemistry and pharmacology of its analogs. Lloydia, 36:45-58.
- Shulgin AT (1979). Chemistry of phenethylamines related to mescaline. J. Psychedelic Drugs, 11: 41-52.
- Singh D, Singh A (2005). The toxicity of four native Indian plants, effect on AChE and acid/alkaline phosphatase level in fish *Channa marulius*. Chemosphere. 60(1): 135-140.
- Sonavane GS, Sarveiya VP, Kasture VS, Kasture SB (2002). Anxiogenic activity of *Myristica fragrans* seeds. Pharmacol. Biochem. Behavior., 71(1-2): 239-44.
- Soulimani R, Fleurentin J, Mortier F, Misslin R, Derrieu G, Pelt JM (1991). Neurotropic action of the hydroalcoholic extract of *Melissa officinalis* in the mouse. Planta Med., 57: 105-109.
- Sparre G, Harling B (eds) (1978-2009). Flora of Ecuador (various authors). Council for Nordic Publications in Botany.
- Speroni E, Minghetti A (1988). Neuropharmacological activity of extracts from *Passiflora incarnata*. Planta Med., 54: 488-491.
- Sufka KJ, Roach JT, Chambliss WG, Broom SL, Feltenstein MW, Wyandt CM, Zeng L (2001). Anxiolytic properties of botanical extracts in the chick social separation-stress procedure. Psychopharmacology (Berlin) 153(2): 219-224.
- Szegedi A, Kohnen R, Dienel A, Kieser M (2005). Acute treatment of moderate to severe depression with hypericum extract WS 5570 (St John's Wort), randomised controlled double blind non-inferiority trial versus paroxetine BMJ. 330(7490): 503.
- Taddei I, Giacchetti D (1980). Fondamenti di Farmacognosia. Bologna, Editoriale Grasso.
- Tafreshi AP, Ahmadi A, Ghaffarpur M, Mostafavi H, Rezaeizadeh H, Minaie B, Faghihzadeh S, Naseri M (2008). An Iranian herbal-marine medicine, MS14, ameliorates experimental allergic encephalomyelitis. Phytother. Res., 22(8): 1083-1086.
- Tariq SH, Pulisetty S (2008). Pharmacotherapy for insomnia. Clin. Geriatric Med. 24(1): 93-105, vii.
- Toriizuka K, Kamiki H, Ohmura NY, Fujii M, Hori Y, Fukumura M, Hirai Y, Isoda S, Nemoto Y, Ida Y (2005). Anxiolytic effect of *Gardeniae Fructus*-extract containing active ingredient from Kamishoyosan (KSS), a Japanese traditional Kampo medicine. Life Sci., 77(24): 3010-3020.
- Torres CM (1995). Archaeological Evidence for the Antiquity of Psychoactive Plant Use in the Central Andes. Annuli dei Musei civici Roverero 11: 291-326.
- Torres CM (1996). Status of Research on Psychoactive Snuff Powders, A Review of the Literature. In Jahrbuch für Erhnomedizin, Verlag für Wissenschaft und Bildung, Berlin, pp. 15-39.
- Torres CM, Repke DB (1996). The Use of *Anadenanrhera colubrina* var. *cebil* by Wichi (Mataco) Shamans of the Chaco Central, Argentina. Jahrbuch fuer Ethnomedizin: 41-58.
- Torres CM, Repke DB, Chan K, McKenna D, Llagostera A, Schultes RE (1991). Snuff powders from pre-Hispanic San Pedro de Atacama, chemical and contestual analysis. Curr. Anthropol., 32: 640-649.
- Tortoriello J, Aguilar-Santamaría L (1996). Evaluation of the calciumantagonist, antidiarrhoeic and central nervous system activities of *Baccharis serraefolia*. J. Ethnopharmacol., 53(3): 157-163.
- Ulloa Ulloa C, Jørgensen PM (1993). Arboles y arbustos de los Andes del Ecuador. AAU Reports 30: 1-263.

- United Nations Conference on Trade and Development (UNCTD) (2000). Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices. Background Note by the UNCTAD Secretariat. Geneva, United Nations Conference on Trade and Development, (document reference TD/B/COM.1/EM.13/2).
- Valdizan H, Maldonado YA (1922). La medicina popular peruana. 3 tomos. Torres Aguirre, Lima.
- Veerendra Kumar MH, Gupta YK (2003). Effect of *Centella asiatica* on cognition and oxidative stress in an intracerebroventricular streptozotocin model of Alzheimer's disease in rats. Clin. Exper. Pharmacol. Physiol., 30(5-6): 336-342.
- Vermiglio F, Lo Presti VP, Moleti M, Sidoti M, Tortorella G, Scaffidi G, Castagna MG, Mattina F, Violi MA, Crisà A, Artemisia A, Trimarchi F (2004). Attention deficit and hyperactivity disorders in the offspring of mothers exposed to mild-moderate iodine deficiency, a possible novel iodine deficiency disorder in developed countries. J. Clin. Endocrinol. Metabol., 89(12): 6054-6060.
- Vos JH, Geerts AA, Borgers JW, Mars MH, Muskens JA, van Wuijckhuise-Sjouke LA (2002). Senecio jacobaea, deceiving beauty. Senecio jacobaea poisoning. Tijdschrift Diergeneeskd, 127(24): 753-756
- Wijeweera P, Arnason JT, Koszycki D, Merali Z (2006). Evaluation of anxiolytic properties of Gotukola (*Centella asiatica*) extracts and asiaticoside in rat behavioral models. Phytomedicine, 13(9-10): 668-676.
- Wilbert J (1972). Tobacco and shamanistic ecstasy among the Warrao Indians of Venezuela. In: Furst P (ed) Flesh of the Gods, The Ritual Use of Hallucinogens. Praeger, New York, pp. 53-83.
- Wilbert J (1987). Tobacco and Shamanism in South America. Psychoactive Plants of the World, vol. 1. Yale University Press, New Haven and London.
- World Health Organization (1998). Report, Technical Briefing on Traditional Medicine. Forty- ninth Regional Committee Meeting, Manila, Philippines, 18 September 1998. Manila, WHO Regional Office for the Western Pacific.
- World Health Organization (1999a). Consultation Meeting on Traditional Medicine and Modern Medicine, Harmonizing the Two Approaches. Geneva, World Health Organization, (document reference (WP)TM/ICP/TM/001/RB/98– RS/99/GE/32(CHN)).
- World Health Organization (1999b). Traditional, Complementary and Alternative Medicines and Therapies. Washington DC, WHO Regional Office for the Americas/Pan American Health Organization (Working group OPS/OMS).
- World Health Organization (2002). WHO Traditional Medicine Strategy 2002–2005. World Health Organization, Geneva.
- World Health Organization (2009a). World health fact sheet. http://www.int/mediacentre/factsheets/fs312/en/index.html. Accessed 05/15/20010.
- World Health Organization (2009b). World health fact sheet. http://www.int/mediacentre/factsheets/fs297/en/index.html. Accessed 05/15/20010.
- Wu JK, Huo JH, Du XW (2007). Pharmacological effects of volatile oil of *Valeriana amurensis* on CNS Zhong Yao Cai. 30(8): 977-980. Yao M, Ritchie HE, Brown-Woodman PD (2007). A developmental toxicity-screening test of Valerian. J. Ethnopharm., 113(2):204-209.
- Yi LT, Li JM, Li YC, Pan Y, Xu Q, Kong LD (2008). Antidepressant-like behavioral and neurochemical effects of the citrus-associated chemical apigenin. Life Sci., 82(13-14): 741-751.
- Zanoli P, Avallone R, Baraldi M (2000). Behavioral characterisation of the flavonoids apigenin and chrysin. Fitoterapia 71(1): 117-23.

Appendix 1. Species encountered and used in Northern Peru ritual and nervous system.

Family/Genus/Species	Indigenous name	Plant part used	Administration	Preparation	Use	Coll. #
AIZOACEAE						
Tetragonia crystallina L'Herit	Hierba de la Sonrisa, Señorita, Ulluco de Gentil, Hierba de la Señorita	Stems, Leaves, Flowers, fresh	1. Seguro 2 Topical	 Standard Seguro mixture, see below. Alternative mixture for Spiritual Flowering, see below. 	1., 2. Happiness, Tranquility, Fragrance, Good luck, Spiritual Flowering, Protection, Good health, Good fortune, Good business	ISA133, RBU/PL360, ISA26, GER131
AMARANTHACEAE						
Alternanthera brasiliana (L.) Kuntze	Hierba del Oso, Veronica (Hembra), Moradilla de Cerro	Whole plant, fresh or dried	Topical	Limpia or bath. 5 g per 3 l boiled water, also use with Hierba del Susto, Zanahoria de Gentil, Poleo de Gentil. 1-2 times per month.		RBU/PL275, JULS11, EHCHL78, ISA83
Alternanthera halmifolia (Lam.) Standley and Pittier	Paja Morada, Lenguetilla, Lengua de Pajaro, Sanguinaria, Moradilla, Hierba Morada, Colores	Whole plant, fresh	Oral	Boil 1 I water, then add 10 g total of Toronjil, Manzanilla, Romero, Hinojo, Chanca de Comida, Cascorade, and Membrillo. Let mixture sit for 2 to 3 min. Drink lukewarm 3-4 times per day during mealtimes, or as needed. Patient should drink cold solution. It is important to drink it at 6 AM and at 6 PM.	Nerves, Anxiety, Relaxation	JULS85, JULS243, GER23
Alternanthera porrigens (Jacquin) Kuntze	Sanguinaria, Moradilla, Lancetilla	Whole plant, fresh or dried	1. Topical 2. Seguro	 Alternative mixture for Spiritual Flowering, see below. Take 3 baths per month. Standard Seguro mixture, see below. 	1. Fragrance, Luck in love and work, Bad Air / Mal Aire, Love, Business Relations, Protection, Good fortune, Good health 2. Good business, Protection, Good fortune, Good health	EHCHL142, ISA56, RBU/PL301, RBU/PL324, EHCHL93, GER117
Alternanthera villosa H.B.K.	Hierba del Oso	Flowers, Leaves and Stems, fresh or dried	1. Oral 2. Topical	 Boil 20 g of Hierba del Oso in 1/2 cup of water for 5 min. Drink cold, 1/8 cup 1 time only. Bath mixture for Protection from evil, see below. 	Bad Air / Mal Aire, Sorcery (protection from) Protection from evil	GER63
ALSTROEMERIACEAE Bomarea dulcis (Hook.) Beauv.	Espuela de Gallo	Whole plant, fresh	Seguro	3 Stems per flask.	Protection, Success, Advising	ISA95

ANNACARDIACEAE						
Mauria heterophylla H.B.K.	. Shimir, Tres Hojas, Trinidad, Chacur, Ahimir, Feregreco	Leaves, fresh	Topical	Boil 50 g with Lailambo, Nogal, Ajenco, Timolina. Limpia, once a week	Daño, Fright / Susto, Skin irritation from daño	ISA24, JULS17, EHCHL83
APIACEAE						
Ammi visnaga (L.) Lam.	Bisnaga	Flowers and Leaves, fresh	Topical	20 g crushed Leaves as poultice, or 20 g per 5 l water for 20 min as bath, 3 times per week.	Bad Air / Mal Aire, Headache	EHCHL134
Apium graveolens L.	Apio Cimarron, Apio	Whole plant, fresh	1. Oral 2. Topical	 Boil 1 I water, then add 10 g Apio Cimarron. Combine with Manzanilla, Mejorana, and Culantrillo. Drtink 4 cups per day for 1 week. Boil with Perejil. Mix with Agua del Susto, 7 Espiritus. 3 baths per month. 	 Nerves, Insomnia, Anxiety Freight in children / Susto en niños, Gastritis 	JULS21, ISA79, ISA116, EHCHL106
Arracacia xanthorrhiza Bancroft	Racacha, Racacha Cimarrona	Leaves and Stems, fresh	Topical	Boil 20 g of plant material with Flor de Chocho, Eucalyptus, Chueguis, and 2 l of water. Bathe the patient in the warm mixture while rubbing him with the Leaves. Bathe 3 times a week for 1 month using 1 cup of material.	Fright / Susto	JULS278
Coriandrum sativum L.	Culantro	Leaves, fresh	Topical	Place fresh Leaves on top of the eyes. Apply only once. Leave it for 1 h.	Mal Aire that takes your sight	GER47
Daucus montanus H. and B. ex Spreng.	Zanahoria de Zorro, Zanahoria de Gentil, Zanahoria	1. Leaves and Stems, fresh 2., 3. Root, fresh	Topical	Leaves with Bully Vinegar and 7 Espíritus, 1 bundle with 3 I boiled water with Ishpinguillo, Conchalalay Blanco, Manzanilla de Cerro, Lailambo, and Timolina. As bath, limpia or poultice, 1-2 times per week.	Bad Air / Mal Aire, Sorcery, Twists, Contusions caused by Sorcery, Susto in the Huacas / Susto en las huacas, Sustos of the summits / Susto de las cumbres	ISA33, ISA38, ISA68, JULS271, GER172
Hydrocotyle bonariensis Commerson ex Lam.	Tutapure de Estrella	Leaves and Stems, dried	Topical	1 handful boiled with 3 I water. Can combine with Bejuco Amarillo and Palo Blanco. 1 bath per month.	Sorcery	ISA8
Niphogeton dissecta (Benth.) Macbr.	Hornamo Toro, Orma Motora	1. Leaves and Stems, dried 2. Whole plant, fresh	1. Topical 2. Oral	 Boil 20 g per 5 I, 20 min. Mix with other Hornamos. Bath, 3 times per week. Boil 5 g per 1/2I, drink 1 cup per day, 1 month. 	Wounds from sorcery Purgative	EHCHL166, RBU/PL338
Petroselinum crispum (Miller) A.W. Hill	Perejil	Whole plant, fresh	1. Oral 2., 3. Topical	 3 – 5 g of herb per 1 l of water, combined with Toronjil, Pimpinela, Mejorana, Siempre Viva. Take 1 glass 2 times a day, 3 days before the menstrual period and three days after. Can also be eaten as salad. Bundle fresh Leaves and Stems with Apio and burn. Crush herb and boil with meat and salt. Apply as poultice other herbs. 2 per month as limpia or bath. 	menstrual cycle 2. Daño, Fright / Susto	ISA80, EHCHL31, ISA117, RBU/PL278, JULS225

APOCYNACEAE						
Mandevilla antennacea (A.DC.) Schum.	Bejuco Colambo Negro	Whole plant, fresh	Charm	Plant and grow close to the house.	Protecting the house and field	GER236
Mandevilla cf. trianae Woodson	Bejuco, Bejuco Negro	Leaves, fresh o dried	r Topical	1 handful of per 3 I boiled water. Can combine with Zanahoria, Gentil, Chilca, Añasquero Chico, Ishpinguillo, Conchalalay, Hierba del Susto (if it's used for susto), 7 Espiritus. Bathe once a week and have a limpia once a month.	Daño de Brevaje, Fright / Susto, Sorcery	t ISA14, ISA13
Thevetia peruviana (Pers. Schum.	.) Mailchin, Maichil, Camalonga, Cabalonga	1. Stems and Leaves, fresh 2., 3. Seeds, dried	1. Topical 2., 3. Oral	 Bath, add 10 g of plant Leaves with 2 I of water and boil the mixture for 3 min, or boil 20 min in 5 I water, apply the mixture lukewarm. Rub the patient with the Flowers and the water. Right after bath, advise patient to dress in warm clothing. 2 baths per week (Tuesday and Friday) or 3-4 times a month. Do not ingest! Ground and boiled, best macerated in wine that has a small amount of alcohol, must use holy wine from the church Mixed with Seeds from a specific seven other plants: Ashango, Pucho, Amala, Quina Quina, Mozcada, Ishpingo, 1 time per month or as needed. Put together 1 Seeds of Cabalonga in 1 bottle of wine and let it sit for 8 days, one small wine glass once a day for 20 days or as needed. 	e Arthritis, Cause bad luck / Cast a spell (Sorcery) 2. Bad Air / Mal Aire, Epilepsy, Nerves 3. Bad Air / Mal Aire, Sorcery	EHCHL162, TRUVan/Eric a19, JULS187, EHCHL174, GER225
ARALIACEAE						
Oreopanax eriocephalus Harms	Maque Maque, Mano de León	Leaves and Flowers, fresh	1. Oral 2., 3. Topical	 2. Boil 3-10g per 1I of water. Drink 3-4 times per day for 1 month or take as bath. 5 g per 3 I boiled water, mixed with Laurel, Rumilanche, Poleo de Gentil, 7 Espiritus, and Manzanilla Blanca, Romero Castillo, Manzanilla Blanca, Nogal. Bathe 3 times a month. 	system, Protection from evil	
ARECACEAE						
Bactris spp. ARISTOLOCHIACEAE	Chonta	Wood	Charm	Pass stick over body while praying.	Protection	GER229
Aristolochia ruiziana (Klotzsch) Zahlbr.	Bejuca del Contraaire	Stems, dried	Oral	Boil 20 g of Bejuca with 1 cup of water for 10 min. Patient should drink cold solution. Once only.	Untangling a person who is having trouble progressing in life, Untangling a person who is a mess	GER107

ASCLEPIADACEAE						
Sarcostemma clausum (Jacquin) Schultes	Marrajudio	Leaves, Stems, fresh	Topical	2 I of water, add 10 g of Flor de Retama, Quinual, Flor de Chuco, 20 g of Eucalyptus. Boil for 3 min. Let it cool. Once cooled proceed with taking a bath. 2 to 3 times a week as needed. Alternatively break a Stem and collect Resin. Apply on affected area. Twice a day (AM and PM) as needed.	Fright / Susto	JULS121, GER43
ASPHODELACEAE						
Aloe vera (L.) Burm f.	Sabila, Zabila, Aloe, Hojas de Sabila, Aloe Vera	Leaves, fresh	Charm	Hang whole plant in doorway.	Good Luck, Happiness	JULS274, GER22, EHCHL165, VFCHL10
ASTERACEAE						
Achillea millefolium L.	Milenrama, Chonchon	Flowers and Leaves, fresh	Topical	1 bundle per 5 I boiling water, 3 baths per month during the night.	Dispel bad spells	RBU/PL371, RBU/PL361, EHCHL56
Achyrocline alata (H.B.K.) DC.	Ishpinguillo, Ishpingo, Flor de Ishpingo	1., 2. Stems and Leaves, dried	d Topical	Bath and limpia, 5 g boiled with 3 l water, mixed with Añasquero Grande, Ajenco, Tres Hojas. 2 times per month. Alternatively 1/2 kg, boiled 10 min for a steam bath.	Fright / Susto, Daño in children	ISA85, ISA109
Ambrosia arborescens Miller	Ambrosia	Whole plant, fresh	1. Topical 2. Seguro	 Alternative mixture for Spiritual Flowering, see below. One time only. Standard Seguro mixture, see below. 	Spiritual Flowering Good business, Protection, Good fortune, Good health	GER118
Ambrosia peruviana Willd.	Altamisa, Marco, Artamisa, Manzanilla del Muerto, Marcos, Alta Misa, Ajenjo, Altamis, Llatama Negra Malera, Llatama Roja Malera	Leaves and Stems, fresh	1. Oral 2. Topical	1. Boil 1 I water 2 min, then mix water with a total of 10g of Manzanilla, Borraja, Madre Selva, Toronjil, Hinojo and Chancas de Comida for nerve disorders. Use Boldo, Malva, and Linaza for liver ailments. Use Matico, Borraja, Eucalipto, Vira Vira, and Brochamelia for Bronchitis. Cover and let sit for 2-3 min. Drink lukewarm, 3-4 cups a day for a month. Colds: Boil 1/2 I of water with 50 g of Altamiz and 10 g of Sauce, Chicoria, and Pajaro Bobo for 10min. 2 tablespoons every 8 h for 8 days. 2. Boil 200 g with 3 I water and 7 Espiritus, Agua de Susto. Use as poultice, or bath, 6 h per bath 2 times per month, 1 month. For Susto 3 times a week: Tuesday, Friday, and the following Tuesday.	1. Nerves, Bad Air / Mal Aire 2. Fright / Susto	JULS108, TRUBH18, RBU/PL370, TRUBH15, JULS90, GER9, GER110
Arnica montana L.	Arnica	Commercial tincture	Charm	Place close to patient, inhale. Splash all corners of the house the center of the house and make a sign of the cross at the h front door with it.		JLS106 in

Artemisia absinthium L.	Ajenco	1., 2., 3. Leaves, fresh 4. Whole plant, preferably Leaves and Stems, fresh	1., 2., 3. Topical	 Natural, as limpia, 1 bundle with Bully Vinegar, Añasquero grande, Añasquero chico, Flores de Muerto, Hierba del Susto, 7 Espiritus, Agua del Susto. Twice per week (Tuesday and Friday). Bath, with Añasquero Grande, Ruda Hembra, 7 Espiritus, and Agua del Susto (if you have Susto). twice per week. 	children, Sorcery	ISA66, RBU/PL363, GER146
Baccharis ciliaris (Retz.) Koeler	Pata de Gallina	Whole plant, fresh or dried	Seguro	Mix in a bottle 10 g of Valeriana Estrella, Señorita, Carpintero, Chupa Flor, Hierba la Coqueta, Oro, Dollar. Add Agua Florida, Ramillete de Novia, Tabu, Lime juice, Agua Bendita, sugar. One bottle to keep forever.	Protection of job and house, Protection (general)	JULS220
Baccharis inidica (L.) Gaert	Pata de Gallina	Whole plant, fresh or dried	Seguro	Mix in a bottle 10 g of Valeriana Estrella, Señorita, Carpintero, Chupa Flor, Hierba la Coqueta, Oro, Dollar. Add Agua Florida, Ramillete de Novia, Tabu, Lime juice, Agua Bendita, sugar. One bottle to keep forever.	Protection of job and house, Protection (general)	JULS220
Baccharis salicifolia (R. and P.) Pers.	Hierba de la Plata Chilco Hembra	, Whole plant, fresh	 Topical Seguro 	 Alternative mixture for Spiritual Flowering, see below. Bathe once. Standard Seguro mixture, see below. 	1., 2. Good business, Protection, Good fortune, Good health	TRUVan/Eric a5, GER125, GER84
Baccharis vaccinioides H.B.K.	Sigueme Sigueme	e Flowers and Leaves, fresh	Topical	1. Standard Seguro mixture, see below. Some spiritual prayer invoking the name of the patient, owner of the seguro. Fogear on Tuesdays and Fridays. Spray and rub the mixture on the patient for good luck. 2. Bath, 50 g of all: Hierba del Lucero, Hierba del Este, Ambrocilla, Senorita, Caballero, Pega Pega, Siempre Viva, Carpintero, Waime Waime, Piri Piri (Hembra y Macho), Hierba del Buen Querer, Hierba del Oro, Hierba del Regocio boil into 5-7 L water and boil for 20 min then add a bit of the following perfumes: Cariño, Dios de la Huaringa, Dios de la Felicidad, San Antonio, Macumba Pusanga, Gran Jefe, Mil Flores, Llama Plata, and Ekeko and let it cool before bathing. 2 times (Tuesdays and Fridays only) every 3 months.		GER188, TRU BH 28
Diplostephium gynoxyoides Cuatr.	Parrano	Flowers, fresh	Topical	Crush 2 kg of Parrano Leaves + 200 g of Flor de Muerto, Frejol Chileno, Garlic, and Agua Cananga (perfume). Place on affected area and cover with a piece of cloth for 3 h.	Mal de Aire	GER5
Diplostephium sagastegu Cuatrecasas	<i>ii</i> Hierba del Tigre, Gato Simura	Leaves and Stems, fresh or dried	1. Oral 2. Topical 3. Seguro	1. Boil 10g of Hierba del Tigre, 10 g of Hierba del Oso, and 10 g of Semora Negra, 3 Leaves of Toro Simuro, and 3 Leaves of Mishia Amarilla in 1/2 cup of water for 5 min. Very strong compound. Do not exceed the dosage. 1/8 cup 1 time only. Drink cold. Patient should stay inside the house without any light or noise for 3 days. Should also observe a diet (no spices or seafood). 2. Bath mixture for Protection from Evil, see below. Only once. 3. 2 small branches per seguro.		RBU/PL336, ISA139, TRUBH24, GER58

Ferryanthus verbascifolius (H.B.K.) H. Robinson and Brettell			Topical	Mix with Timolina, 2 times per week as limpia. Mixed with Tutapure Negro, Manzanilla Blanca, Añasquero Chico, Ruda Chingue, Conchalay, Ticra, Manzanilla, 7 Espiritus as bath, 3 times per week. Can also be used as steam bath once a month.		ISA36, ISA9, ISA11
Loricaria ferruginea (R. and P.) Wedd.	Palmerilla, Palmita, Pata de Gallina, Palmera, Trencilla, Palmilla, Patita de Gallo, Palmera Blan	Leaves and Stems, fresh	1. Topical 2. Seguro	 Alternative mixture for Spiritual Flowering, see below. 3 times per day, 1 week, only once for florecimiento. Standard Seguro mixture, see below. 	1. Spiritual Flowering / Florecimiento 2. Protection, Good health, Good fortune, Good business, Fragrance, Succes, Good travels, Becoming sociable, Good relations with others	GER108, RBU/PL339, TRUBH20, ISA136, TRU Van/Erica23, 10, ISA148(105a)
Loricaria pauciflora Cuatr.	Palmilla Ancha, Palmilla Verde, Palma Bendita	Whole plant, fresh	1. Seguro 2. Topical	 7 small plants per Seguro, combine with strong magical herbs. Boiled 15-20 min, 10-20 g per 12 l water, bath/saumo 2-3 times per month. 	Business To cast away bad spirits	TRUVan/Eric a18, EHCHL13
<i>Matricaria frigidum</i> (HBK) Kunth	Manzanilla	Whole plant, fresh or dried	Oral	Boil water first. Add 10 g Manzanilla per cup. Three cups per day for one week.	Pain of love, Nerves, Insomnia	JULS22, EHCHL1, TRUBH7
Matricaria recutita L.	Manzanillon, Agua de la Banda, Manzanilla Blanca, Manzanilla Amarga	a Whole plant, fresh	Seguro Topical	 Three Stems per flask. Boil the whole plant for 3-5 min. Mix entire plant with Hierba del Susto, Ajenco, after combining with 2 Tsps Bully Vinegar. Pour bath the mix in a bathtub and sit in it, rub the patient, 2-4 times a month. Boil 1 dried bundle per 1 I water for 5 min for washings (wounds). 	1. Good travels, To make people more sociable, Good relations with others 2. Fright / Susto	JULS192, RBU/PL306, ISA120, ISA76, GER145
Mikania leiostachya Benth	ı. Enredadera	Leaves, dried	Topical	1 handful with 3 l boiled water, combine with Huaminga, Chilca, Hierba del Susto, and Agua del Susto. Take 2 baths per week.	Daño, Daño de Brevaje	ISA12
Monactis flaverioides H.B.K.	Hierba del Susto (Amarillo), Malva, Mocura, Hierba del Susto, Hierba Susto	Stems and Leaves, fresh	1. Topical 2. Oral	1. 7 Stems with their Leaves boiled with 3 – 5 I water, combined with Agua del Susto, Ajenco, and Llatama for 20 min. Bath, 2-3 times per week, at 7,9, and 11 PM. 2. Mix with Toronjil, Pimpinela, boiled for 3 - 5 min. 1 I daily for 7 days.	1., 2. Bad Air / Mal Aire, Prostate, Fright / Susto, Vaginal cleansing, Business, Casting away bad luck, Freight in children / Susto en niños	RBU/PL274, TRUVan/Eric
Munnozia lyrata (A. Gray.) Rob. and Brett.) Canillahuanga	Whole plant, fresh or dried	Topical	Bath, 20 g per 5 l, boil 20 min, with Hierba del Susto, Añasquero, Cutiquero, Hierba del Ave, Ishpingo. 3 times per week.	Fright / Susto, Bad Air / Mal Aire	EHCHL138

Onoseris odorata (D. Don Hooker and Arnott) Hierba de Reina	Whole plant, fresh or dried	Oral	10 g per 1 l boiling water, 3 cups per day.	Heart	RBU/PL337
Oritrophium peruvianum (Lam.) Cuatrec.	Huamanripa, China Linda, Wiña Wiña, Vira Vira, Oronamo, Hierba del Sol, Maguanmarica, Hierba del Lucero		1. Topcial 2. Seguro	 Standard mixture for Spiritual Flowering, see below. Standard Seguro mixture, see below. 	Fragrance, Attract lovers, Spiritual Flowering Illuminating your patl and destiny, Good business, Protection, Good fortune, Good health	JULS58, EHCHL126, TRUBH29, 126, TRUVan/Eric a2, ISA96, GER166,
Perezia multiflora (H. and B.) Lessing	Corzonera, Escorcionera, Escorzonera	Whole plant, fresh or dried	Oral	Boil 1I water, then add 10g Escorcionera. Combine with Matico, Eucalyptus, Veronica, Vira Vira, Nogal, Huamanripa, Tilo and Zarzamora. 3 cups per day for 15 days. Patient should drink cold solution.	Nerves	RBU/PL323, JULS16, EHCHL52, GER160
Porophyllum ruderale (Jacq.) Cas.	Hierba Gallinazo, Hierba del Gallinazo	Whole plant, dried	1. Incense 2. Topical	 Burn with Llatama, Ajos Giro, Añasquero Chico, 5g each herb. 2 times per month. 5 g Llantén, Ajos Giros, Hierba Gallinazo, Hierba del Romero, Flor del Huerto, Eucalyptus, add Floripondio Flowers, Retama and Añasquero Chico per 3l. Bathe 2 times per month, Tuesday and Friday only. Rub body with herbs. Rinse with the water. Do not dried with a towel. Air dry. 	1. Clean the energy of the home 2. Daño, Fright / Susto	ISA73, GER89, JULS180
Pseudogynoxis cordifolia (Cass.) Cabr.	San Juan	Whole plant, fresh or dried	Topical	Add 10 g of plant material with 2l of water and 10 g of Eucalyptus, Chancas de Muerto, and Romero. Boil the mixture for 3 min. Wash the patient in the lukewarm mixture during the evenings. Advise the patient not to leave the house afterwards. Bathe every 2 days.	Fright / Susto, Bad Air / Mal Aire	JULS294
Senecio canescens (H.B.K.) Cuatrecasas	Vira Vira, Oreja de Conejo	e Whole plant, fresh	1. Oral 2. Topical	 1. 10 g diced herb in boiling water, combine with Borraja, Eucalyptus, Corzonera, Borraja, Cerraja, Polen de Hierbas, Manzanilla, Toronjil, Congona, Poleo, Claveles, Juan Alonso, Espina de Hoja, and Alcanfor. Drink 3 cups per day, 1 month 2. Use same mixture for steam baths and inhalation. 		TRUBH8, RBU/PL322, EHCHL104, 24, ISA108, TRUVan/Eric a12, JULS14, GER158

Senecio chinogeton Wedo	d. Hornamo Leon Amarillo	Leaves and Stems, fresh or dried	1., 2. Oral	1. Boil at low temperature 3 pieces of 3 inches each of Hornamo Leon Amarillo and Hornamo Leon Verde, 1 slice of San Pedro of 6 lines and one of 7 lines and 3 pieces of 3 inches each of Condor Purga in 9L of water for 1 h at low temperature. Drink cold, 1 small glass 1 time only. 2. Boil 2 leaves of Misha Morada, 1 leaf of Misha Amarilla, 1 leaf of Misha Blanca, 1 leaf of Misha Rosada, 1g of Toro Maigue and 1g of Toro Misha. in 1/2 cup of water for 5 min. Drink cold. Patient must stay in a dark room for 3 days while maintaining a diet without spices or seafood. Patient should rest for three more days afterwards. 1/8 of a small glass.	1., 2. Bad Air / Mal Aire Hallucinoen / Vision enhancement	, GER60
Senecio hypsandinus Cuatr.	Ornamo Blanco	Whole plant, fresh	Seguro	A few Stems per flask.	Fragrance, Good Luck	RBU/PL358
Sonchus oleraceus L.	Cerraja, Serraja, Zeraja	Whole plant, fresh	1., 2., 3. Oral	 1. 1 cup with the whole plant (especially Flowers) cut with scissors, together with 3 drops of lime, a pinch of salt and a shot of pisco, let mixture sit for 3 min and take Take 1 cup, 2 times a day for 1 day, until condition passes. 2. 1 handful of herb boiled with 1/2l water, 3 cups per day, before food. 3. Take 1 whole plant, crush, drink extract, once. 	 Embarrasment, Shame, Hangover, Negative energy, Anger To calm strong character Hangover 	RBU/PL368, EHCHL54, JULS64, VFCHL48, JULS248
Tagetes erecta L.	Flores del Muerto, Claveles Chino, Flor de Muerto	Flowers and Leaves, fresh	1. Topcial 2. Oral	1. Macerated in any liquid substance (like Agua Florida). With 100 g of Parrano, 100 g of Frejol chileno ground, 100g of Ajo ground, 5g of Chili powder and 5g of Black Pepper and 5 g of Oregano, Flor de Chocho, Retama, Ruda (hembra and macho) and Agua del Susto. As poultice, put a portion on feet and cover with a cloth. It can also be used on the stomach. Alternatively the mixture as bath, 3 times per week, Tuesday, Friday, Tuesday. 2. Take 3 to 4 Flowers and boil in 1I of water along with 10 g of a mixture of Toronjil, Pimpinela, Poleo, Manzanilla. Drink 3 to 4 glasses a day for 1 month.	of the stomach, Bad Air f / Mal Aire 2. Nerves	EHCHL141, JULS156, GER112
Tagetes patula L.	Flores del Muerto	Stems and Leaves, fresh or dried	Topical	Limpia, 5 g with 3 l water mixed with Ajenco, Ruda Hembra, Hierba del Susto, Manzanilla Blanca, and Timolina. 2 times per month.	Susto of Death/ Susto de muerte.	ISA89
Taraxacum officinale Wiggers	Diente de Leon, Amargon, Hierba del Leon	Whole plant, fresh	1., 3. Topical 2. Oral	 200 g leaf and flask of 7 Espiritus. Poultice: 2 times per month. 20 g leaf, 2l of water with Chacur, Pie de Perro, Cola de Caballo, Linasa, Malva, Amor Seco and other plants. 20g total of all. Add a piece of 4 inches of Bejuca del Contra Aire, and 2 spikes of Palmerilla. Boil for 3 min. 1 cup 4 times a day for 1 month. Bath mixture for Protection from Evil, see below. Only once. 		RBU/PL252, JULS150, GER62, GER189

Trixis cacalioides H.B.K.	Añasquero Chico	Whole plant, fresh or dried	1. Incense 2. Topical	1. Burn 2 times a month. 2. Mix with Añasquero Grande, Ruda Hembra, Ruda Macho, Ajenco, Timolina, Ishpinguillo, Chuque, 7 Espiritus. Take 2 baths per week or use as limpia once a week.	 Rid the house of negative energy Daño, Fright / Susto, Bad Air / Mal Aire 	ISA65, RBU/PL295
Werneria humilis H.B.K.	Señorita	Flowers, Leaves and Stems, fresh	s Seguro	3 Flowers or Stems per flask.	Inducement of love in Is men and women, For a woman to find a good n Making the feelings of r and women clearer	nan,
<i>Werneria pygmaea</i> H. and A.	l Hierba del Halago	Whole Fruit, fresh	1. Seguro 2. Topical	 Standard Seguro mixture, see below. Standard mixture for Spiritual Flowering, see below. 	1. Good business, Protection, Good fortune, Good health 2. Spiritual Flowering	GER120
Werneria villosa A. Gray	Hierba del Oro	Leves and Stems, fresh	1. Seguro 2. Topical	 Standard Seguro mixture, see below. Alternative mixture for Spiritual Flowering, see below. After boiling add a bottle of your favorite perfume. Rub the entire body with all the herbs, then rinse with the water and Air dry. Do not use soap nor a towel. 	1., 2. So that all goes well in the life of a person, Home, Good luck, Big enterprise, Personal, Good business, Protection, Good fortune, Good health	ISA101, GER124
BALANOPHORACEAE						
Corynaea crassa Hook. F.	Huanarpo (hembra and macho)	Tuber/Root, fresh	Oral	1 bottle of wine (abuelo), add 10 g of Huanarpo, then add Huevo de Angelote, Bee Pollen, honey, Pacra, Palo Sangre, Palo Huaco, Chuchuhuasi, Cascarilla, Para-Para. Drink 3 cups per day, 3-6 months. Take a small cup before intercourse. Can refill the wine bottle once more with the same herbs, it will be stronger. If it for a man, use "macho". If it is for a woman, use "hembra". 3 cups per day, 3-6 months. Take a small cup before intercourse.	Tension	JULS171, VFCHL52
BIGNONIACEAE						
Cydista aequinoctialis (L.) Miers	Bejuco Amarillo	Flowers, Leaves and Stems, fresh	s Topical	1 handful in 3 I water for 5 min. 2 times per month.	Daño, Internal inflammation from sorcery, Bruises froms sorcery	ISA6
Tynnanthus scabra (Hoffm. ex Roem. and Schult.) Schum.	Clavo Huasca	Leaves and Stems, fresh	Oral	Blend 100g of plant material with 1/4 glass of water and drain. Drink cold. Used during ritual ceremonies. 1 tablespoon per ritual.	Bad Air / Mal Aire, Hallucinogen, Enhance the vision of shaman	GER224

BORAGINACEAE						
Borrago officinalis L.	Borraja	Whole plant, fresh or dried	Oral	10 g herb with 1 l boiling water, boiled for 3-5 min, combined with Vira Vira. Drink three times per day or 1 l per day, as long as needed.	Anxiety, Depression, Nerves, Insomnia	ISA112, JULS24, RBU/PL300, EHCHL58
Cordia alliodora (R. and P.) Oken	Ajos Giro, Ajos Quiro, Ajo Sacha	Bark and Stems, dried	Topcial	5 g with Llatama, Ajos Giros, Añasquero grande, Llatama, Hierba del Gallinazo, Añasquero chico, Ruda macho per 3 l water. 2 baths per month. Can also be used as steam bath.	Daño, Fright / Susto, Dispelling negative energy from the house	ISA74, JULS281
Heliotropium curasavicum L.	Alacran, Alacrancillo	Whole plant, fresh or dried	Topical	Boil 10 g of Alacran with 10g total of Hierba de la Plata, Justicia, and yellow, red, and white roses in 2 - 3 l of water. Bathe 3 times (Tuesday, Friday, and the following Tuesday).	Spiritual Flowering	JULS305
BROMELIACEAE						
Puya hamata L.B. Sm.	Hierba del Carnero, Hierba de Borrego	Hairy part of the Seeds, dried	e 1. Oral 2. Topical	 1. 1 cup of water and 5 g of the plant (the hairy part of the Seeds being the most important) and boil for 3 min. Drink 1 cup twice a day 3 to 4 times a week. This seguro is used to get the patient under control, usually if the patient is being violent or out of control because of drunkenness or other reasons. 2. Same mixture can be applied as poultice. 	Making a man stupid, Making a man obey like a sheep, Cleansing, Controlling a violent person, Dominating a drunk	JULS162, GER95, EHCHL121
Puya weberbaueri Mez.	Ticta, Tifta	Whole plant, fresh or dried	Topical	Boil 15 g of Ticta and 10 g of Hierba Santa with 3 l of water. Boil the mixture for 3-4 min. Bathe the patient in the mixture. Patient can bathe on any day. Bathe once a week, for 1 month.	Bad Air / Mal Aire, Wounds, Any illness involving wounds	JULS290
Tillandsia cacticola L.B. Sm.	Palmera, Siempre Viva, Palma Bendita, Siempreviva (lilac)	Stems, fresh	1. Topical 2. Oral 3. Seguro	 50 g in fire combined with Romero, Palo Santo, Alucema, Incense, Saumerio, and Myrrha. As bath: Alternative mixture for Spiritual Flowering, see below. Steam bath, as needed or bath one time per day for 15 - 30 days. 20 g per 1 l water, boil 2 min. Combine with Pimpinela, Cedron, Mejorana, Simpre Viva, Flores de Diamelas, Toronjil, Romero, Claveles, Orange Flowers. 1 l per day or 3-4 cups per day after meals. Standard Seguro mixture, see below. 	1., 2. Fright / Susto, Nerves, Anxiety, Heavy air, Good luck, Susto of Death / Susto de muerte, Spiritual Flowering, Good business, Protection, Good Luck, Good health 3. Good business, Protection, Good luck, Good health	
Tillandsia multiflora Bentham. var. decipiens (Andre) Sm.	Siempre Viva, Siempre Viva Roja	1. Flowers, a fresh 2. Whole plant, fresh	1. Oral 2. Topical	 1. 10 g per 1l boiling water. Combine with Toronjil, Clavelin, and Lime juice. Take 3 times a day for 1 month. 2. 20 g per 5 l water and boil for 20 min. Bathe 3 times a week. 	1., 2. Depression, Nerves	EHCHL15, RBU/PL376

BURSERACEAE						
Bursera graveolens (H.B.K.) Triana and Planchon	Palo Santo, Palo de Santo	Small Stems, Bark and Wood dried	1. Topical , 2. Incense	 3 Tbs per 3 I water. Combine with Romero Blanco and Romero Castilla. Bathe 2-4 per month. Big house: use 250 g of herb. Small house: 20g. Combine with Romero Blanco, Romero de Castilla, Romero, Hierba de la Plata, Hierba de la Fortuna, and Hierba de Oro, incense and myrrha. Every Tuesday and Friday as needed. For people: Patient must be naked with a piece of cloth tied to the neck. Place the jar with the smoking Palo de Santo under the person (feet) letting the smoke rise. Also used in animal corrals mixed with Palo Huaco to keep insects away. 	energy from the house, Bad shadow	ISA143, JULS210, GER34
Commiphora myrrha (T. Nees) Engl.	Mirra	Latex, dried	Incense	Burn it into charcoal and mix with 10 g of Myrrha plus Palo Santo, Saumerio, and Romero. Burn like an incense and spread smoke around the patients house. 3 times a week: Tuesdays - Friday - Tuesday. Repeat as necessary.	Dispelling negative energy from the house	JULS195
CACTACEAE						
Echinopsis pachanoi (Britton and Rose) Friedrich and G. Rowley	San Pedro, Huachuma	Whole plant, fresh	Oral, Topical	Chop San Pedro in thin slices horizontally and boil in 4l of water from 12 noon to 6pm. Cook on low fire and add water if necessary. 1 glass for the patient and 1 glass for the shaman per ritual session. Cannot eat fat, spices (such as aji), fish or shellfish, for 24 h after drinking. Apply topical for wounds and acne. Patient should stay away from the sunlight for 24 hs.	Hallucinogen, TRUBH36 Enhancing vision during rituals, Wounds caused Mal Daño, Bad Air / Mal	JULS242, GER73 by
CAMPANULACEAE						
Centropogon articulatus Drake	Conchalalay	Stems and Leaves, fresh or dried	Topical r	20 g per 5 l water, boil 20 min. Bath, 1-3 times per month.	Fright / Susto, Air / Aire	EHCHL119
Centropogon cf. cornutus L.	Raínga	Leaves and Stems, dried	Oral	Boil 1 cup of water with 100 g of the plant. Drink cold. Once a day. It has to be followed by other treatments with other herbs.	Bad Air / Mal Aire	GER78
Siphocampylus angustiflorus Schlechtendal	Contoya, Hierba de Envidia, Contolla	Flowers, Leaves and Stems, fresh	s 1. Oral 2. Topical	 5 g per 1/2 cup with boiled water, drink 1 per month. 20 min, with 10g of herb per 10l water mixed with other herbs of luck. Bathe 3 times per week. 	Purgative Daño, Cast away envy	RBU/PL364, EHCHL99
Siphocampylus cutervensis A. Zahlbr.	Conchalalay Blanco	Leaves, fresh	Topical	1 handful or pouch with 3 I boiled water. Combined with Conchalay Colorado, Guaminga, Bully Vinegar, and 7 Espiritus. 2 baths a week, in agreement with what the Mesa indicates. As limpia 2 times a month.	Freight/ Susto, Daño	ISA2

Siphocampylus tupaeformis Zahlbr.	Cochaya	Whole Fruit, fresh	Charm	Do not ever cut the plant. Use it in its natural form by planting Guarding the hous it in the area around your house. Always plant Cochaya close and land. to a San Pedro. Always have a few on your property. If a thief comes onto your property this plant will start to release snakes all around and tie the person up without ropes. A thief can go crazy. This plant always detects who is doing bad things and recognizes its owner and its family.	e GER102
CAPPARIDACEAE					
Capparis crotonoides H.B.K.	Simuro, Bichayo, Simulo	Leaves, fresh	Topical	 Boil 10 Flowers buds in 1/2 cup of water for 2 min. Patient Bad Air / Mal Aire should drink warm solution and stay inside the house during treatment. 1 cup a day for 8 days. Boil 2 kg of Bichayo Leaves in 5l of water for 30 min. The patient must be naked with a towel over his head in an enclosed room. Patient must take deep breath/inhalations. Bath should last about 1/2 h. 1 bath every 6 days, 2 times only. Crush 20 Leaves of Bichayo. Place crushed Leaves on affected area and masage the area with it. Patient should not go out during treatment. Add 20 g of plant material into 4 – 5 l of water. Boil the mixture for 5 - 6 min. Bathe with the tizana. Do not ingest. Bath 2-3 times, as needed. 	GER4, JULS250
CAPRIFOLIAEAE					
Lonicera japonica Thunberg	Madre Selva	Whole plant, fresh or dried	Oral	Boil 1 I water, then add 10 g Madre Selva. Drink 3-4 cups per Depression, Pain of day for 1-3 months, or as needed. Epilepsy is characterized by heart pains, frequent falling to the ground, and los of consciousnes every 3 days.	psy,
Sambucus nigra L.	Cinta de novia	Stems, fresh	Charm	Tie a picture on the Stems and wrap it. Pray and spray (fogear) perfume with the appropriate names. One per ritual. Repeat as needed. Ritual "Amarres" is for tying up a person, binding someone.	GER220
Sambucus peruviana H.B.K.	Sauco, Saucotillo	1. Leaves, Flowers, Stems, fresh or dried 2., 3. Leaves, fresh 4. Flowers and Leaves, fresh	1. Oral 2. Topical	1. Boil 1 I of water, then add 10g of Sauco. Add Manzanilla, Hinojo, Coleo, Ajenjo, Toronjil, Pimpinela and Claveles. Cover and let it sit for 2-3 min. Patient should drink warm solution, 3-4 cups per day for 1 month.2. Bath. Combine with Nogal, Hierba del Susto, Manzanilla Blanca with a flask of Timolina. 2-4 times per month, not to be used too much because it is very cold	EHCHL140, RBU/PL291, VFCHL44, ISA131, ISA87, JULS246, EHCHL110

CARICACEAE						
Jacartia digitata (Poepp. and Endl.) Solms-Lang.	Contra Hechizo	Root, fresh	Oral	Boil a 25 cm portion of root boiled with 3 I water, 20 min or crush 200g of Contra Hechizo adding 50 g of sugar. Drain the extract. 1 glass during the session, in agreement with the patient.	Purgative (Daño	EHCHL70, GER72
CARYOPHYLLACEAE						
Dianthus caryophyllus L.	Claveles, Clavelina, Clavel de la Costa	Whole plant, fresh	1. Topical 2. Oral	1. Boil 7 entire plants with Hierba de la Plata, Hierba de la Justicia, Ruda, and Romero per 3l of water for 5 min. Bath as needed on special days depending on the phases of the moon. 1-3 times per month depending on the individual. 2. 50 g of the Claveles (white, red, yellow, and purple petals), 5 g of sugar and 1/2 cup of water and boil for 2 min. 3-4 cups per day, 1 month.	1.2. Pain of love / Mal de amor, Sentimentality, Nerves, Good luck, Insomnia	JULS18, JULS37, GER214
CHLORANTHACEAE						
Hedyosmum racemosum (R. and P.) G. Don.	Masamoche, Asancito, Asarcito Asarquiro, Choleta		Oral	Use outside of Bark. 8 - 10 g per 2l water, boil 20 min. drink as needed. Alternatively 30g per two bottles of alcohol mixed with Chuchuwasi, Cascarilla, 7 Raices, and Huayacanes then allow to sit for 8 days. Drink as needed, but do not drink before it has sat 8 days.	·	EHCHL147, RBU/PL377
CHRYSOBALANACEAE						
Coupeia sp.	Acharachango, Charachango, Ashango	Seeds, dried or fresh	 Topical Oral Blown on patient 	 Bath, 20 Seeds per 5l water, ground and boiled. 3 times per week, or 2 a month, Tuesday and Friday. Beverage: 7-15 Seeds per 1 l water, crushed and macerated for 8 days. 3-4 small cups per day, 7 days. Seeds can be also macerated in alcohol for 5 days, then 1 Tbsp, 3 times per day. 	1., 2., 3. Fright / Susto, Bad Air / Mal Aire, Nervous system, Enchantment, Sorcery, Getting rid of daño, Epilepsia	EHCHL157, RBU/PL381, GER68, VFCHL54
CLETHRACEAE						
Clethra castaneifolia Meissner	Hierba del Olvido	Leaves and Stems, dried	Seguro	Put together in a cloth 10 g of Hierba del Olvido, 10g of Hierba del Demonio, and Hierba de la Justicia. Seal and pray. Patient must carry the bag and pray.	Dominating judgment (ritual), Dominating legal problems (ritual)	GER115
CLUSIACEAE						
Clusia minor L.	Chusgon	Whole Fruit, fresh or dried	Oral	Boil 1I of water, then add 10 g of Chusgon. Add Pimpinela, Manazanilla, Toronjil, Barrojo, Romero, and Chancas de Comida. Let it sit for 2 - 3 min. Patient should drink warm solution. 1 cup 4 times a day as needed.	Nerves, Heart disease	JULS280

Hypericum aciculare Kunth.	Hierba de las Cordilleras, Lechuguilla, Hierba de Iman	Leaves and Stems, fresh	1. Seguro 2 Topical	 1. 1 small Stem. 2. Mix with Llonque, 7 Espiritus, Hierba Santa. Limpa twice a week. 	So that you should get all you want Sorcery, Headache	ISA135, ISA35, JULS301
Hypericum laricifolium Jus	s. Hierba de Cariño, Hierba de la Fortuna, Solitario, Chinchango, Abrecaminos	fresh	1. Topical 2. Seguro	 Alternative mixture for Spiritual Flowering, see below. Take 3 baths per month. Standard Seguro mixture, see below. 	1. Fragrance, Luck in love and work, Bad Air Mal Aire, Love, Business Relations, Protection, Good fortune, Good health 2. Good business, Protection, Good fortune, Good health	RBU/PL344, / TRUBH1, TRUVan/Eric a22, EHCHL145, GER128, GER126
CRASSULACEAE						
<i>Echeveria peruviana</i> Meyen	Pinpin, Siempre Viva, Rosa Berta, Haya Rosa	Leaves, fresh	Oral	2 Leaves per $\frac{1}{2}$ I water, boil 5 min. 1 I daily or three times per day.	Nerves	EHCHL118, VFCHL33, JULS249
CUCURBITACEAE						
Sicana odorifera (Vell.) Naud.	Secana	Whole plant, fresh	Charm	Sleep with plant material and wash it every morning. Do not eat the plant. At the end of thetreatment, the Secana will be wrinkled. Dispose of it in a far away place. Keep the Secana for 7 days and 7 nights.	Jealousy	JULS247
CYPERACEAE				3		
Cyperus articulatus L.	Baston de San Jose, Varita de San Jose, Pura pura	Whole plant, fresh	1. Seguro 2. Topical	1. Add plant material with Hierba de la Plata, Hierba de la Justica, El Dolar, Carpintero, Chupa Flor, Señorita, Hierba de Oro, Fortuna, Agua Florida, perfume, Remillete de Novia, Lime juice, white sugar, and Holy water. Put all materials in a bottle: first herbs, then remaining materials, and cover the mixture. Only the patient can touch the seguro. It is kept within the house. 2. Boil the plant material with Hierba de la Plata, Hierba de la Justica, El Dolar, Carpintero, Chupa Flor, Señorita, Hierba del Oro, Fortuna, Roses (various kinds), Ruda (Hembra and Macho), and 3I of water. Boil the mixture for 10 min to make solution concentrated. The patient is rubbed with Flowers while bathing in the lukewarm mixture. Bathe Tuesday, Friday, and the following Tuesday, which represents 1 cycle. The bath should be before noon, at 3PM or at midnight. Patients bathe for 3 cycles.		JULS267

Kyllingia pumila Michx.	Hierba de la Golondrina	Whole plant, fresh	Topical	Boiled 20 min, 30 g per 6l water with other herbs of luck. Bathe 3 times a week.	Heart, Nerves, Luck, Daño toward a woman	EHCHL73
Oreobolos goeppingeri Sues	Hierba Chupaflor, Hierba de Suerte, Hierba del Carpintero	Leaves, dried	Topical Seguro	 20 – 50 g per 3 - 5 l, boil 20 min. Mixed with herbs of luck and herbs of strength. Bath, 3 times per week. Alternatively: Alternative mixture for Spiritual Flowering, see below. 1 time only. Standard Seguro mixture, see below. 	Success, Bad Air / Mal Aire, Good luck, Work, Aphrodisiac, Good business, Protection, Good fortune, Good health	EHCHL149, TRUVan/Eric a17, EHCHL67, GER119
Scirpus californicus (C.A. Meyer) Steudel subsp. tatora (Kunth) T. Koyama	Balsa, Totora	Heart of the stem, fresh	Charm	Make a small tool, like a brush, of the insides of the Stems. Make the sign of the cros with the brush on the patient and wipe the brush on them. After use, burn the plant. If it falls apart it means the child had mal ojo. Note that this is used only for children.	Hangover, Evil eye/ Ma ojo	I JULS111, GER169
ELAEOCARPACEAE						
Vallea stipularis L.f.	Chuingue	Leaves, fresh o dried	r Topical	1 handful per 3 I water, mix with Timolina, use for limpia. Alternatively mix maternal milk together with the leaf and put in the ears.	Daño	ISA32
ERICACEAE						
Bejaria aestuans L.	Pullunrosa, Cadillo, Payama, Hierba de la Postema, Purenrosa, Hierba del buen querer	Flowers, Leave and Stems, fresh or dried	s 1. Oral 2. Seguro	 5 g per 1 I, boil 5 min, used with Flor Blanca, Papa Madre, Flor de Arena, Gauyusa, Pasuchaca, Malva, Amor Seco, Berbena, Llanten, Cola de Caballo, Chumbiaura, Palo de China, Huaminga, Quinuajiro. Drink 3 cups daily or 1I per day for 1-3 months. Standard seguro mixture, see below. 	2. Good Luck, Good business, Protection,	VFCHL22, JULS50, EHCHL39, ISA114, ISA43, JULS234, GER121
Gaultheria reticulata H.B.K.	Toromaique, Toro Maique, Toromaike, Maique, Maque Candela, Toro Maique Amarillo, Toro Maique Verde, Gavilan Maique Amarillo, Gavilan Maique Verde	1., 3., 4., 5. Whole plant, fresh 2. Leaves, dried	1., 5. Topical 2. Oral 3. Seguro 4. Incense	 20 - 30 min boil for 50 g per 7 L of water and mix with other Maiques (7 varieties), 10g each of: Mishia Blanca, Mishia Colambo, Mishia Galga, Mishia Morada, Mishia Roja, Mishia Rosada and Toro Maique. Recite a prayer. Bath, 3 times per week. Bathe the patient in the mixture while rubbing him/her with the herbs. Afterwards, rinse the patient in water, and allow him/her to air dry. 3 g ground Leaves per 1 cup water, take once a month in the morning before breakfast. Add 10 g of plant material with Hierba de la Plata, Hierba de la Fortuna, Hierba del Oro, Carpintero, Chupa Flor, Señorita, Condores, Trenza Dias, Agua Florida, Tabu Perfume, Lime juice, Agua Bendita, and sugar. Place all ingredients into 1 bottle. Smoke the area using a right to left motion as needed. Boil 1/2 a cup of water with 50 g of plant material for 5 min Apply to affected area, once a day until it heals. 	1. Hallucinogen, Bad Air / Mal Aire, Anything else that bothers the body 2. Purgative 3. Protecting the house, Protecting the patient 4. Protecting the patient, Rituals 5. Wounds, Cysts, Wounds from Sorcery	GER241,

ERIOCAULACEAE Paepalanthus ensifolius Kunth	Madriguera	Whole plant, fresh	Seguro	1/5 of plant per Seguro.	Make a business succesful, To have control of employees	ISA149(106a)
ERYTHROXYLACEAE Erythroxylon coca Lam.	Coca	Leaves, dried	Oral	Add 5 g of the leaf with 1 cup of water. Boil the mixture for 3-4 min, then let it cool. Gargle 3 times a day for 2 days. Drink 1 cup before bed for 2-3 days. Alternatively wash and chew about 5g of Leaves at a time.	Ritual practices	JULS144, GER201
EUPHORBIACEAE						
Hura crepitans L.	Habilla	Seeds, dried	Oral	Grind 3 Seeds, mix with 1 cup of oats. Make a hot cereal and drink warm1 cup once. Drink cold. Do not exceed the dosage, is very strong and can kill you.	Laxative, Removing laziness	JULS161, GER205
Jatropa curcas L.	Piñones	Seeds, dried	Oral	Grind 7 Seeds and mix with 1 cup of oats. Drink warm. Patient will react with diarrhea and vomiting. After reaction, give strong tea. 1 cup, once.	Laxative, Getting rid of laziness	JULS231
Jatropa gosypiifolia L.	Piñones	Seeds, dried	Oral	Grind 7 Seeds and mix with 1 cup of oats. Drink warm. Patient will react with diarrhea and vomiting. After reaction, give strong tea. 1 cup, once.	Laxative, Getting rid of laziness	JULS231
Jatropa multifida L.	Piñones	Seeds, dried	Oral	Grind 7 Seeds and mix with 1 cup of oats. Drink warm. Patient will react with diarrhea and vomiting. After reaction, give strong tea. 1 cup, once.	Laxative, Getting rid of laziness	JULS231
FABACEAE				g		
Cajanus cajan (L.) Millsp.	Chivato	Whole plant, fresh or dried	Topical	Boil 3I of water with 10g total of Eucalyptus, Manzanilla, Ilambo, Cordon de Muerto, and Chivato, boil for 5 min. Bathe with the water and rub with the plants. 2 times a week or 4 times a month as needed, depending on how bad the Mal Aire was.	Bad Air / Mal Aire	JULS136
Cassia fistula L.	Caña Fistula	Seeds, fresh or dried	Oral	Boil 10g per 1I water. Drink 1 cup daily as needed (approximately 15-20 days).	Nervous system, Epilepsy	RBU/PL386
Desmodium triflorum (L.) DC	Pega Pega	Whole plant, fresh	1. Seguro 2. Topical	 Standard Seguro mixture, see below. Standard mixture for Spiritual Flowering, see below. 	Spiritual Flowering Good business, Protection, Good fortune, Good health	GER122, RBU/PL347
Diodea virgata (Rich.) Amsh.	Yin Yin	Whole plant, fresh	Oral	Remove sSeds from the pod. Pop the Seeds into a child's mouth, then promptly instruct the child to close their mouth. Repeat 3 times. Repeat this procedure 2 times a day, for 3 days.	Promoting child speech	JULS270

Erythrina ormosia	Huariro, Huairuro, Huayruro	Seeds, dried	Charm	Make a bracelet with the Seeds. Wear at all times on the left E hand	Evil Eye / Mal Ojo	JULS170
Erythrina spp.	Huailulo, Huairuro	Seeds, dried	Charm	Make a necklace with the Seeds and have the shaman bless it with spiritual prayers. Wear the necklace, made for life.	Protection from evil	GER196
Lathyrus odoratus L.	Tacon Blanco, Pensamiento Blanco	Flowers, Leaves,Stems, fresh or dried	Oral	5g per 1I, 3 min, combined with Toronjil, Pimpinela, Mejorana, and Cedron. Drink 1I per day or 3-4 cups a day for one month.	Nerves, Anxiety	VFCHL43
Myroxylon balsamum (L.) Harms.	Quina Quina, Kina Kina	Seeds, dried	1. Oral 2. Topical	1. Grind 20 Seeds, mixed with Seeds from a specific seven other plants: Ashango, Pucho, Amala, Ishpingo, Mozcada, Cabalonga and put in a bottle of wine and and amacerar for 8 days. Drink 3 small cups per day. 2. Boil 20 Seeds per 5l water for 20-30 min with Ishpingo, Ashango, Pucho, Amala, Raucho, Tokio, Nuez Moscada, Pepa de Cedron (use only the Seeds of these herbs) with 1l of 90 proof alcohol and add 2 pieces of tobacco, 2 pieces of Ajo Macho, 10 g of Quina Quina, 2 Leaves of Pacra, 1 branch of both Eucalyptus and Maye. Do not leave bath outside, take bath every other day. 3 times per week.		JULS287, RBU/PL382, EHCHL151, VFCHL46, GER91
Spartium junceum L.	Retama	Whole plant, fresh	Topical	Boiled for 20 min and mixed with Maiques. Bath, 3 times per week for one week. 50 g boiled 20-30 min, per 5 l of water, with herbs of luck, herbs of strength (like Condor and Trensilla) as steam bath, 3 times per week.	Good Luck	EHCHL60, EHCHL 146, RBU/PL279, JULS239
Zornia reticulata Sm.	Hierba de la Vibora	Whole plant, dried	Oral	5 g per 1 l water with Conchalagua, Norbo, Colores, three times per day during meals.	Nervousness	EHCHL122
GENTIANACEAE						
Gentianella bicolor (Wedd.) J. Pringle	Corpus Way, Corposhuar, Hornamo Leon	Whole plant, fresh or dried	Seguro	Mix plant material with Hierba de la Plata, Hierba de la Fortuna, Hierba del Dollar, Hierba de la Justicia, Hierba del oro, Carpintero, Señorita, Sonrisa, etc. Place all the herbs in one bottle with Agua Florida, Lime juice, etc. Use mixture for rituals, or use as a seguro.	Good luck, Good health, Good business, Protection	EHCHL14, VFCHL5, RBU/PL304, JULS167
GERANIACEAE				•		
Pelargonium odoratisimun (L.) L'Herit.	n Malva de Oro, Malva de Olor, Malva Olorosa	Whole plant, fresh or dried	1. Oral 2. Topical	 5g per 1l boiling water. Drink 1l per day. Boil 2 l of water with 10 g of Ishpingo, Eucalyptus, Cordon de Muerto, Flor de Chocho, and Flor de Retama. Boil for 3 min. Bathe 2-3 times a month. 	Nerves, Blood, Mal de susto Fright / Susto	TRUVan/Eric a14, TRUBH6, EHCHL89, JULS188
HIPPOCRATEACEAE Tontelea crassifolia (Mart.) Spreng.) Bejuco de Montaña	Seeds and Stems, fresh or dried	Topical	200g per 3l boiling water, take 2 baths per month.	Nervous system	RBU/PL383

JUGLANDACEAE Juglans neotropica Diels	Nogal	Leaves, fresh	Topical	 3 I water with a bundle or pouch of the herb, 3 times per month. Limpia, mixed with Añasquero Grande, Rumilanche, Ishpinguillo, Sauco, 3 per month. 	1. Sorcery, Daño, Fright / Susto 2. Sorcery, Daño, Arthritis, Fright / Susto	ISA67, EHCHL4,
LAMIACEAE <i>Lavandula angustifolia</i> Miller	Alucema, Alhucema, Labanda	Flowers, Leaves, Stems and Seeds, dried	1. Oral 2. Topical	1. Do not use roots. Boil 1 I of water, then add a total of 10g of Labanda, Romero, Claveles, Hinojo, Toronjil, Anjenjo, Manzanilla, and Pinpinela for 2 min. Patient should drink lukewarm solution. 1 cup 3 to 4 times a day for 1 month. 2. Boil 3 I of water with 20 g total of Labanda, Romero, and Eucalyptus for 3 min. Patient should wash with water and masage with Flowers. 2 times a week or 4 times a month or as needed.	Nerves Relaxant, Stress	GER113, JULS177
Lepechinia meyenii (Walpers) Epling	Salvia, Salvia Real	Whole plant, fresh or dried	1. Oral 2. Topical	 Boil 30 g per 1 l water. Take with meals, three times per day. 5 g per 3 l water, mixed with Añasquero Chico, Ajenco, Nogal and Bully Vinegar. Bath, 2 times per month. 	1. Nerves, Memory, 2. Fright / Susto, Freight / Susto in children	RBU/PL303, VFCHL17, ISA91
Marrubium vulgare L.	Cordon de Muerto, Chanca de Comida, Chancaz de Muerto	Whole plant, fresh or dried	Topical	Boil 20 to 30 g of Cordon de Muerto, mix with Eucalyptus, Ishpingo, Chiuato, Quinual and place in 2 to 3l of water for 5 to 8 min. Empty into a bucket and place in an enclosed room. Rub the solution on your whole body with all the plants.2 baths a week for 4 to 5 months if the patient is in good condition. Do not let the solution touch the mouth.		JULS132
Melissa officinalis L.	Toronjil, Melissa	Whole plant, fresh or dried	Topical Oral	 Boil in 2l water for 10 min. Mixed with Torongil, and Churguis. Bathe twice a week, or as needed. 20 - 30 g per 1 l water, 2 min, with Pimpinela, Cedron, Mejorana, Siempre Viva, flores de Amelas, Romero, Claveles, ongona, Manzanilla, Mejorana, Pimpinela, Naranja Flowers. Drink 4 cups per day, 1 month. 	Ill-mannered children Pain of love, Nerves, Insomnia, Nervous system	,
Ocimum basilicum L.	Albaca Mistura, Albaca Negra, Albaca, Albaca Morada, Albahaca (costa)	Whole plant, fresh	1., 3. Topical 2., Oral	 Use 20 g of herb mixed with Agua Florida, Eucalipto, Alcanfor, Molle, and cane alcohol, Agua del Susto, Flor de Retama, Hierba del Gallinazo. Mix with Ruda Hembra and Macho, Ajenjo, two peppers. Limpia, take it on Tuesday, Friday, and next Tuesday, 3 times. 100g per 1l for 5 - 8 min combined with Romero, Salvia Real, Yerba Santa, Malva, Olorosa. Bathe three days per week or every eight days. Place 1 Seeds directly into the eye. Leave there for 3 hs or until the eye waters it out. 1 time a month for only 2 months. 	1., 2., 3. Daño, Fright / Susto, Bad Air / Mal Aire, Insomnia, Low blood pressure, Good luck	JULS54, EHCHL48, VFCHL13, RBU/PL284, TRUVan/Eric a8, GER191

Origanum majorana L.	Mejorana	Leaves and Stems, fresh	Oral	10g Mejorana per 1I water. Combine with Sanguinaria, Congona, Toronjil, Melisa, Manzanilla, Hinojo, Albahaca Serrana, Poleo, Manzanilla and Vaniour. Patient should drink warm solution. 4 cups per day for 1 month. For diabetes 4 times a day for life.	Nerves, Anxiety, Depression, Pain of love	EHCHL88, JULS19, RBU/PL317, GER165
Rosmarinus officinalis L.	Romero, Romero Castilla	Leaves, fresh o dried	r 1. Oral 2., 3 Topical	 5 g with Eucaliptus, Cola de Caballo and Ruda in 11 boiling water. 2 cups per day for 2 days. Take 4 cups per day for 1 month. Boil 1 bundle of Romero Castilla with 3 I water for 10 min. Combine with Llantén, Manzanilla Blanca, Savila, Palo Blanco, Manzanillón, the Flowers of Retama, the Flowers of Chochos, Cordon de Muerto, Verbena, Melisa, Eucalyptus and 7 Espiritus. Inhale or bathe Tuesday, Friday, and the following Tuesday for 10 min each time. Burn 1 bundle of Romero Otomillo with several other plants, including Palo Santo. Cut the plant and put it on top of burning charcoal and inhale. 	Nerves, Bronchitis, Indigestion, Colic, Headache, Stomach, Pain of love 2. Fright / Susto, Dispelling negative energy in the house 3. Purify, Absorb negative energy, To	RBU/PL329, ISA78, TRUBH11, EHCHL3, JULS27, VFCHL2, ISA105
Salvia ayavacensis H.B.K.	. Ticra, Sticra	Leaves, fresh o dried	r Topical	1 handful per 1l boiling water. Can combine with Tutapure Blanco, Lailambo, Conchalay Amarillo, Conchalay Blanco, Ticra, Zanahoria, Poleo de Gentil, and 7 Espiritus. 1-2 baths per month. Do not ingest.	Daño, Fright / Susto, Sorcery	ISA37, ISA150(92a), RBU/PL290
Salvia cuspidata R. and P	. Salvia Blanca	Whole plant, fresh or dried	Topical	1 bundle boiled for 5 min with 3 I water. 1 bath per week.	Fright / Susto, Daño	RBU/PL315
Salvia discolor H.B.K.	Palmeras (Chica), Llatama, Yatama	Stems, fresh	Seguro Topcial	 3 Stems per flask. Used with de with Ishpinguillo, Hierba del Gallinazo, Ajos Giro, 7 Espiritus. Steam bath twice per month or bath 2 - 3 times per month for children. 	 Success Clean the energy of the home, Fright / Susto in children 	ISA93, ISA151(93a), ISA25
Salvia macrophylla Benth.	. Cuchichara	Leaves, fresh o dried	r Topical	Toast and beat into a pulp. Put pulp on wound.	Wounds from Sorcery, Chronic gangrene	ISA29
Salvia rosmarinifolia Hort. ex G. Don.	Romero del Campo, Romero Blanco, Romero Serrano	Whole plant, fresh	1., 2., 3. Topical	1. Boiled 20 min, 20 g per 1 I water, with other Romeros, Salvia, Mejorana. Administer while tepid and absorb the vapors produced. Steam inhalation 2 - 3 times per month. 2. Alternatively burn one bundle with charcoal, Palo Santo, incense and Myrrh and Eucalyptus. Patient should surround themselves with the vapors and smoke produced. 3. Can also be used as bath: 1 bundle or pouch per 3I boiling water, with Canchalagua and Cola de Caballo. Fresh: use leaf and Stems. One time only (Tuesday or Friday).	1., 2., 3. Bad Air / Mal Aire, Negative energy, Cleansing of the home, Fright / Susto	
Salvia tubiflora R. and P.	Hierba del Recaida, Hierba del Aire, Cutiquero, Yuca del Aire, Paja del Aire	Whole plant, fresh or dried	1. Oral 2. Topical	 5 g per 1 l water. Do not mix with other plants. 1 cup three times per day. 500 g per 1 l alcohol, boiled for 20 min, with 1 bottle of Agua Florida, 1 bottle of Agua Cananga and finish filling the bottle with Cañazo. Bath, 3 times per week. 	1. Bad Air / Mal Aire 2. Bad Air / Mal Aire, Paralysis, Body pain, Half body paralyzed, Facial paralysis	EHCHL148, RBU/PL286, EHCHL49, GER70, GER175

Scutellatia scutellarioides (Kunth) R. Harley LAURACEAE	Poleo de Gentil	Whole plant, fresh	Topical	1 bundle boiled for 5 min with 3l water. 1 bath per week.	Fright / Susto, Daño	ISA69
Aiouea dubia (H.B.K.) Mez.	Ishpingo	Seeds, fresh or dried	1. Topical 2. Oral	 Crush and boil 20 Seeds per 5 I for 20 - 30 min. mix with Ishpingo, Achango, Pucho, Amala. Bath, every other day, 3 times a week. Do not leave bath outside, use every other day. Crush Seeds, mix with Seeds from a specific seven other plants: Ashango, Pucho, Amala, Quina Quina, Mozcada, Cabalonga and boil in water. Drink 1 time per month 	1. Fright / Susto, Bad Air / Mal Aire 2. Bad Air / Mal Aire, Epilepsy	EHCHL152
Cinnamonum verum J. Presl.	Canela	Bark, dried	1. Topical 2. Oral	1. 1 I of water with 10 g of canela and mix with petals of roses (red, white, yellow), Ramillete de Novia, Agua Florida, sugar, and 1 lime (its juice). Boil for 2 to 5 min. Take a bath ir the solution 3 to 4 times a month. Alternatively grind and pulverize 100 g. Rub powder throughout the body while praying and wishing for the person you are yearning for. 4 times a week or as needed. 2. 1 I of water, 1 garlic clove, 10 g of Matico, Veronica, Brochamelia, Vira Vira, 3 g of Cinnamon. Boil for 3 to 4 min. Drink warm, 3 to 4 times a day as needed. After rituals drink cold a day after rituals occurance. Preferably in the morning during breakfast. As much as the patient feels is needed.	1. Good luck, Love, Enchantment 2. Recovering after working all night on rituals	JULS122, GER101
Nectandra floribunda Nee	s Ishpino, Flor de Ishpingo, Hierba de Ishpingo	1. Seeds and Bark, fresh or dried 2. Leaves and Flowers, fresh or dried	1. Oral 2. Topical	1. Mixed with Seeds from specific seven other plants: Ashango, Pucho, Amala, Quina Quina, Mozcada, Cabalonga Boil 5 Seeds per 1/2 I water, 20 min. Once a month for prevention. 1 I per day, 7-15 days for illnes. 2. Limpia, combine with Timolina and Bully Vinegar, 3 times per week. Alternatively as bath, 20 g per 3 – 5 I water, boil for 20 - 30 min mix with Ajenco, Ruda, Romero, Albahaca, Ortiga, Añasquero, Hierba del Aire, Hierba del Susto, Romero, Hierba del Gallinazo. 3 times per week or once a month for prevention.	2. Fright / Susto, Bad Air / Mal Aire, Nerves, Epilepsy, Enchantment	EHCHL28, VFCHL47, RBU/PL302
Nectandra reticulata (R. and P.) Mez.	Ishpingo, Espingo blanco, Espingo	1. Seeds, fresh or dried2. Whole plant, fresh or dried	1. Oral 2. Topical	Boil with Hierba de Chocho, Cordon de Muerto, Claveles and Eucalyptus (10 g total). Both bathe and rub the solution over body. 3 times only, any day. Alternatively grind 100 g of Ashiango and 100 g (combined) of Ishpingo, Cedron Seeds, Samala and Quina Quina. Blow ground powder on patients face. 2 times a week for 4 months.		RBU/PL379, JULS151, GER67
LILIACEAE						
Allium odorum L.	Cebolla China, Cebolla	Whole plant, fresh	Topical	Crush 1 1/2 kg of Cebolla and strain in a piece of cloth to get all the extract. Discard the juice and use the rest. Place on top of the affected area and cover with a piece of cloth. Every other day in the AM for 3 days.		JULS129, GER36

Allium sativum L.	Ajo	1. Clove, fresh 2. Peel, fresh	1. Topical 2. Incense	 Crush 250 g of garlic. Add it to 10g Eucalypto, 90g of alcohol, pacra, chuchuhasi and ginger. Let these ingredients soak in 1l alcohol for 1 week. Masage and rub the mixture on affected areas. Rub 1 - 2 times a day, as needed. Burn 1kg of Peel in top of a charcoal burning jar. Smoke the house. Once a week for 4 weeks. Only on Tuesday's or Thursday's. 		JULS92, GER37
Hesperoziphium niveum (Rav.) Rav.	Hierba de la Justicia, Piti Piti, Totorilla	Whole plant, fresh	1. Seguro 2. Oral 3. Topical	1. Put inside a bottle 10 g of Hierba de la Justicia and add Hierba de la Plata, Dollar, Fortuna, Señorita, Valeriana Estrellada, perfume Tabu, Agua Florida, Lime juice, sugar, and Agua Bendita. Keep seguro in bedroom. As alternative put together in a cloth 10 g of Hierba de la Justicia, 10 g of Hierba del Dominio and Hierba del Olvido. Seal and pray. Patient must carry the bag and pray. 2. Have patient eat 3 plants. Oral fresh. Patient must be kept from the light, staying inside for 1 week. Will probably cause vomiting. After consumption patient has to follow a strict diet of no spices at all for 1 week. The person who eats this cannot see the light for 7 consecutive days. 3. Boil 1 Hierba de la Justicia herb with some water for 3 - 4 min. Bathe 3 - 4 times per month.	1. House protection, Health protection, Succeeding professionally at work, Judgement, Wounds (rebellious), Fragrance, Good Luck, Love, Dominating judgment (ritual), Dominating legal problems (ritual) 2. Mal daño through the mouth, Daño, Purgative, Sorcery 3. Spiritual Flowering	JULS269, TRUVan/Eric a9, TRUBH27, RBU/PL325, JULS87, EHCHL79, GER93
LYCOPODIACEAE						
Huperzia crassa (H. and Eex Willd.) Rothm.	B. Condor, Condor Amarillo, Condorcillo, Condorcilla, Condor Rojo, Condor Verde	Leaves and Stems, fresh	1. Seguro 2. Topical	 3 small Branches / Leaves 20 g per 5 l, boil 20 min, combined with herbs of strength and of luck, bathe 2 - 3 times per week, during the evening. 	1., 2. Good luck and succes in travels, Fragrance, Bad Air / Mal Aire	ISA140, TRUBH23, RBU/PL351, 353, 352, 356, EHCHL144
Huperzia cf. columnaris B Oellg.	B. Hornamo Condor Purga	Leaves and Stems, fresh	Oral	For 20 patients boil 2 San Pedro's (1 of 7 lines and 1 of 8 lines) and 100 g of Condor Purga in 4 l of water for 3 h. Drink cold, 1/2 cup one time only.	Laxative	GER106
Huperzia hohenackeri (Herter) Holub	Guaminga	Whole plant, fresh or dried	1. Oral 2. Seguro	 5 g per 1 l boiling water, 1 time per day. Seguro, use 7 small plants per Seguro. 	1., 2. Fright / Susto, Purgative, Bad Air / Ma Aire, Work, Love	TRUVan/Eric I a4
Huperzia kuestneri (Nessel) B. Ollg.	Condor Lasio, Trensa Hermosa, Condor Crespo, Condor Simuro, Condor Mise	Whole plant, fresh or dried	1. Topical 2. Seguro	1. Boil 3 leaves of the following plants: Condor Simuro, Mishia Galga, Semora Curandera, and mix with the following 6oz perfumes: Jardin España, Tabu. Add 1 12oz bottle of Agua Florida and 1 12oz bottle of Cananga, and boil in 1/2 cup of water for 10 min. Drink cold. Patient must stay in a dark room, isolated and on a diet without spices for 3 days. Afterwards, patient may come out of the dark room, but must rest inside the house for another 3 days. 2. 7 small branches per Seguro.	Love	RBU/PL357, TRUVan/Eric a3, TRUVan/Eric a1, GER59, TRUVan/Eric a15

Huperzia reflexa (Lam.) Trevis.	Condor Mulato, Enrededera	Leaves and roots, fresh	Topical	20 g with 1 I water and boil 30 min, with other herbs for strength. Bathe 3 times a week.	Fragrance, Good Luck, To prevent someone from moving, To cause someone to return	RBU/PL359, EHCHL113
Huperzia sellifolia B. Ollg.	Condor Crespo	Whole plant, fresh or dried	Topical	10 g per 1 l boiling water, 2 baths per month, during the evening.	Luck, Fragrance	RBU/PL356(a)
Huperzia tetragona (Hook and Grev.) Trevis.	. Trencilla Roja	Stems, dried	Topical	20 g per 5 I water and boil 20 min mix with herbs of strength like Hornamos and Maiques. Bathe 3 times per week.	Fractures, Good Luck	RBU/PL354
Lycopodium clavatum L.	Trencilla Verde, Destrencilla	Whole plant, fresh or dried	1. Oral 2. Seguro	 5 g per 1 l boiling water, 1 time per day. Seguro, use 7 small plants per Seguro. 	1., 2. Work	RBU/PL348, TRUBH 4, GER154
Lycopodium jussiaei Desvex Poir	/. Hierba del Hombre, Rastrera	Whole plant, fresh or dried	1. Oral 2. Seguro	 5 g per 1 l boiling water, 1 time per day. Seguro, use 7 small plants per Seguro. 	1., 2. Work	TRUBH3
Lycopodium thyoides H. and B. ex Willd. LYTHRACEAE	Trencilla Roja	Stems, dried	Topical	20 g per 5 l water, boil 20 min mix with herbs of strength like Hornamos and Maiques. Bathe 3 times per week.	Luck, Bad Air / Mal Aire, Love, Succes, Business	
Cuphea strigulosa H.B.K.	Lancetilla, Gacetilla, Sanguinaria, Gansetilla, Hierba del Toro	Leaves and Stems, fresh	1. Topical 2. Seguro 3. Oral	 Alternative mixture for Spiritual Flowering, see below. Batheonce. Standard Seguro mixture, see below. 5 – 20 g per 1 l for 3 min, combine with Congona, Claveles, and Madre Selva, Ortiga, Moradilla, Contrahierba, Colores, Agujilla, Colcacur, Pie de Perro, Cola de Caballo, Verbena, Pimpinela, Flor Blanca, Grama Dulce, Esencia de Rosa and Cadillo. Drink 3-4 times per day, 1 l daily, take 1 week - 3 months. Patient should drink solution before eating. 	 Good Luck Nervous system, Bad 	GER104, EHCHL35, VFCHL34, JULS33, ISA51, RBU/PL259, EHCHL43, JULS59, ISA53, GER147
MALPIGHIACEAE						
Banisteriopsis caapi (Spruce ex Grieseb.) Morton	Ayahuasca, Ayahuasca Verde Ayahuasca Amarilla	Bark, fresh or , dried	Oral	1 I of water with 20 g of the Bark. Boil from 12 noon until 4 pm on a low fire, then increase temperature toward the end. Drink cool, One small cup during ceremony. One needs to fast for 24 h before taking the drink prepared. Patient cannot be on menstrual period.	rituals	JULS109, GER65, GER239
MALVACEAE				·		
Gossypium barbadense L	. Algodon Pardo, Algodon	Seed hairs, dried	Topical	Remove the Seeds from the cotton and combine it with a mix of the heart of 2 shredded totoras, 2 aji peppers, and one unbroken egg. Rub the patient with the cotton and mix all over the body. Use the Seedsles cotton to make a sign of the cros on the patient. Then burn the cotton in a faraway place. If the cotton disolves while rubbing, the patient is very sick. Crack the egg in a glass of water and look for signs of illnes in it.	Evil Eye (children)/ Mal Ojo (niños) 2. Wounds (external)	JULS98, GER 262

Malva sylvestris L. Malva Blanca	Malva (Chica),	Leaves,Stems,	Oral	20 g per 1 l water for 3 min. Mix with Toronjil, Pimpinela, fresh or dried Mejorana, Pensamiento, and Cedron. Drink 1 l per day, 15 days. Fright / Susto, B Mal Aire, Nerves Epilepsy (initial states)	
MELASTOMATACEAE					
Miconia salicifolia (Bonpl. Ex Naud.) Naud.	Llatama roja	Leaves,Stems, fresh or dried	Oral	Boil 100 g in 1 cup of water for 5 min. Drink cold, 1/4 cup only Bad Air / Mal Air once.	re GER83
MONIMIACEAE					
Spiaruna aspera (R. and P.) A.DC.	Rinchinchin, Chinchin	Leaves and Stems, dried	Topical	Ground 100 g of the plant material until it is completely pulverized. Blow the powder into the face of the person to whom you want to cause trouble and mention his/her full name. 1 time per ritual. 3 rituals. Causing trouble someone, Caus break-ups in oth couples or famil	ing er
Siparuna muricata (R. and P.) A. DC.	d Añasquero, Hojas de Añascero, Añasquero (Grande)	Leaves and Stems, dried	Topical	Boil 5 I of water with 100 g of: Anasquero, Hierba del Susto, Ishpingo, Romero, Ruda Hembra, Ishpinguillo, Chuque, Palo Santo and 7 Espiritus for 10 min. First: Rub body with herbs Second: Rinse with the water. Third: Do not dry with towel. Also to be used as poultice, 3 times a week to 3 times per month.	año, GER88, EHCHL129, ISA113, ISA64
MYRICACEAE					
Myrica pubescens H. and B. ex Wild.	Laurel	Leaves and Stems, dried	Topical	Bath, 5 g boiled with 3 I water, mixed with Sauco, Nogal, Hierba del Susto. 2-4 times per month. For wounds wash morning and afternoon.	orcery ISA84, ISA128
MYRISTICACEAE					
Myristica fragrans L.	Nuez Moscada, Ajonjoli	Seeds, dried	1., 2. Oral	1. Grind Seeds and boil in 1 I water 1 Seeds to make 4 glasses. Drink 4 cups per day, 7-15 days. Alternatively macerate Nuez Moscada with 10g of Ajonjoli with 1 bottle of Abuelo wine, 10 g each of Palo Sangre, Palo Huaco, bee honey, Pacra, Huanarpo Macho, bee pollen, Huevo de Angelote and Para Para. Take 1 cup in the mornings, middays and evenings until bottle is finished. 2. Grind Seeds and boil in 1 I water with with Seeds from a specific seven other plants: Ashango, Pucho, Amala, Quina Quina, Ishpingo, Cabalonga. Once a month.	em, Bad RBU/PL385, EHCHL155, Aire, JULS292, GER197
MYRTACEAE					
Scutia spicata (H. and B. ex Schultes) Weberb. var. spicata		Stems, fresh or dried	Charm	Put the Stems in a cross formation and tie with a red ribbon. Keeping evil spi Place cross behind the house. Keeping evil spi from the house	rits away JULS226

NYCTAGINACEAE Boerhavia coccinea Mill.	Pega Pega	Whole plant, fresh	1. Topical 2. Seguro	 Alternative mixture for Spiritual Flowering, see below. 3 baths per month, during the evening. Standard Seguro mixture, see below. 	Spiritual Flowering Good business, Protection, Good fortune, Good health	GER122, RBU/PL347
OLEACEAE Olea europaea L.	Hojas de Olivo, Olivo	Leaves, dried	Incense	Place a handful of Olivo, Mirra, Palo Santo, incense, and Romero on top of burning charcoal. Smoke for rituals. Pas the smoke throughout the patient's body and around the house, repeat 2 - 3 times a week, or as needed.	Dispelling negative energy from the house	EHCHL86, JULS204
ONAGRACEAE						
Fuchsia ayavacensis H.B.K.	Conchalalay, Conchalalay Colorado	Leaves and Stems, fresh or dried	1., 2. Topical	 5 g mixed with Sauco, Nogal, Salvia, Añasquero Grande and 7 Espiritus with 3 I boiled water. Boil for 1 h, then let cool down to tepid temperature (lukewarm). 2 Baños per week in agreement with what La Mesa indicates or twice a month. Use fresh Leaves. Combined with Conchalay Blanco and Guaminga, 7 Espiritus, Timolina, Bully Vinegar. Use as poultice 2 per week in agreement with what the mesa indicates. 	Daño, Fright / Susto, Swelling	ISA82, ISA1
Oenothera rosea Aiton	Hierba del Dominio	Whole plant, fresh or dried	Oral	5 g per 1 l water. 4 cups per week, 2 weeks.	Decreasing bad character	RBU/PL366
ORCHIDACEAE						
Aa paleacea (H.B.K.) Rchb. f.	Hierba de la Soledad, Hierba Sola	Leaves, fresh	1. Oral 2. Seguro	 Boil 1 leaf per cup water, drink once a year. One leaf per seguro. 	1., 2. Depression, Loneliness	ISA141, EHCHL75
Epidendrum calanthum Rchb. f.	Sémora Negra, Sémora Curandera	Leaves and Stems, dried	Oral	Boil 1 cup of water with 50 g of plant material. Drink cold once a day.	Bad Air / Mal Aire, Mal C de susto	GER79
Pachyphyllum pastii Krenzl. ex Weberb.	Guaimi Guaimi, Huami Huaimi, Huaime Huaime	 Leaves, fre Stems, fresh 		 Boiled, 10 g per 5 l water with other strong herbs. Use 3 times a week. Add a small Stems tio the seguro, together with herbs of luck. 	1., 2. Self defense, to arm against everything	EHCHL97
Stelis eublepharis Rchb.	f. Hierba del Oro, Boton de Oro	Whole plant, fresh	1. Seguro 2. Topical	 One Stem / 3 g, combined with Hierba de la Plata, Hierba de la Justicia, Hierba del Dominio, Encanto, Sigueme Sigueme and plants of strength and luck. Bath, boiled 20 min, 200 g per 8 L water, 3 times per week for 1 - 6 months. 	1., 2. Fragrance, Good e Luck, Nerves, Luck in love, Luck in business, Good luck for work, Good travels	RBU/PL342, EHCHL9, VFCHL40

POLEMONIACEAE						
Cantua buxifolia Jus. ex Lam.	Candu	Whole plant, fresh or dried	Topical	1I water with 10 g, add a mixture of 10 g of Eucalyptus, Chancas de Muerto, Flor de Chochos. Bathe 3 times in one week (Tuesday, Friday, Tueday) in the afternoon. Hit children who do not speak lightly on the mouth to induce speech.	Fright / Susto, Speech impediment	JULS297
Cantua quercifolia Jus.	Dormidera, Hierba Adormecedora, Tutapure Morado (Chico)		1. Oral 2. Topical	 1. 3 – 5 g per 1 l of water. 1 cup per day in the evening. 2. 3l water boiled with the herbs and vaporized. Baño vaporized over half the body. Can combine with Chingue, Huaminga, Chuque. 1 bath per month. 	 Insomnia, Sedative, Good Luck, Nerves Daño, Sorcery 	RBU/PL362, EHCHL100, GER144. ISA10
POLYPODIACEAE						
Cheilanthes myriophylla Desv.	Hierba del Dominio	Leaves and Stems, fresh or dried	1. Seguro 2. Oral	 Place in bag 10 g of Hierba del Dominio plus 10g Hierba de la Justicia y Hierba del Olvido. Seal. The patient must carry the bag and pray. 3 - 5 per 1 l of water. Drink 3 times per day for one week. 	1., 2. Dominating a problematic person, Dominating a person who is out of control, Anger, Bad humor	GER94, EHCHL37
Grammitis moniliformis (Lag. ex Sw.) Proctor	Trencilla pequenia	a Whole plant, fresh	Seguro	4-5 small Branches.	So that everything continues to go well, So that nothing bad happens to you.	ISA138
<i>Jamesonia goudotii</i> (Hieron) C. Chr.	Hierba del Carpintero	Stems, fresh	Seguro	3 Stems per seguro.	Succes, To open a door that never closes again	`
Jamesonia rotundifolia Fé	e Trencilla Amarilla Hierba del Oso, Bonito de Oro, Bastón del Inca	, 1. Whole plant, dried 2. Leaves, fresh	2. Topical	 According to the size of the portion (almost never the root). little Stems minimum for 1 seguro. Bath, 200 g per 15 l water. 	1. Good Luck, Fragrance, Strength (large amount), Adornment 2. Adornment, Fragrance	RBU/PL343, ISA132, EHCHL26, TRUVan/Eric a11, TRUBH22
PROTEACEAE Oreocallis grandiflora (Lam.) R.Br.	Rumilanche, Bunbun, Huaminga	Leaves and Stems, fresh or dried	Topical	One handful per 3 I water. Can combine with Chingue, Polea de Zanahoria Gentil, Conchalalay Blanco, Apostema and Trebol. Bathe once a week.	Daño de Brevaje, Fright / Susto	EHCHL127, JULS31, ISA28, ISA70
ROSACEAE Alchemilla nivalis H.B.K.	Hierba del Oso	Leaves and	Seguro	3 Stems per flask.	To have spiritual	ISA97
PROTEACEAE Oreocallis grandiflora (Lam.) R.Br. ROSACEAE	Hierba del Oso, Bonito de Oro, Bastón del Inca Rumilanche, Bunbun, Huaminga	dried 2. Leaves, fresh Leaves and Stems, fresh or dried	2. Topical Topical	3 little Stems minimum for 1 seguro. 2. Bath, 200 g per 15 l water. One handful per 3 l water. Can combine with Chingue, Polea de Zanahoria Gentil, Conchalalay Blanco, Apostema and Trebol. Bathe once a week.	Fragrance, Strength (large amount), Adornment 2. Adornment, Fragrance Daño de Brevaje, Fright / Susto	ISA132, EHCHL2 TRUVan a11, TRUBH EHCHL JULS31 ISA28, ISA70

Cydonia oblonga Miller	Membrillo	1. Fruit Peel, fresh 2. Leaves, dresh	Oral	1. Boil 1 I water, then add 1 Membrillo Fruit Peel. Add 10 g Manzanilla, Toronjil, Hinojo, Madre Selva, and Romero. Patient should drink warm solution. 1 cup 3 - 4 times a day for 1 month. 2. Boil 1 I water, then add 10 g Membrillo leaf. Add Manzanilla, Toronjil, Pimpinella, Borraja, Pensamiento, Mejorana, and Romero. Place mixture in hot water and let it sit covered for 2 - 3 min. Drink 1 cup 3 - 4 times per day for 1 month.		JULS194
Fragaria vesca L.	Fresa	Leaves, fresh	Oral		Nerves, Insomnia	JULS158
Geum peruvianum Focke	Valeriana	Stems and Fruits, dried	Oral	Boil 1 cup of water and 10 g of Valeriana for 3 min. drink cold, 1/2 cup 1 time a day, before bed, for 15 days or as needed.	Nerves, Insomnia	GER200
Polylepis racemosa R. and P.	d Quinual	Leaves, fresh o	or Topical	Boil 1 bundle of Quinual with 4 – 5 I water. Do not mix with other plants. Patient should bathe with tepid water. 2 or 3 times, as needed.	Bad Air / Mal Aire	JULS2
Rosa centifolia L.	Rosa de Castilla, Rosa	Flowers, fresh or dried	1. Oral 2. Topical	 Add 10 g of plant material with 1/2 I water. Add Senn and boil the mixture for 1-2 min. Drink warm, 1 cup in one day, only once. Should collect the plant late in the afternoon. Soak in 3I of water 100g of roses of each color, 100g of Margaritas. Let sit overnight and add one bottle of Agua Florida (12 oz) and one bottle of perfume (12 oz.) Rub body with Flowers and Leaves. Rinse and air dry. 2 times a week for 7 days. 	1. Laxative 7. Improvement of health, love, economy	JULS240, GER97
Rubus robustus C. Presl.	Zarzamora, Moyaca, Zarza, Zarza Parrilla, Mora, Cushai	Flowers and Leaves, fresh o dried	Topical or	5l of water boil for 30min. Bathe 3 times per week.	Fright / Susto, Pain of the body	EHCHL132a, b, ISA41, ISA48, JULS47
Sanguisorba minor Scop.	Pimpinela, Flor de Overa	Whole plant, fresh	1. Oral 2., 4. Topical 3. Seguro	 1. 5g per 1I water, mix with Cadillo, Hierba del Apostema, Esencia de Rosa, Lancetilla, Toronjil, Congona, Clavela, Manzanilla, and Azares. Drink 3 times per day 6-12 months. 2., 3. Standard Seguro mixture, see below. Spray the mixture and rub the patient's body with the liquid for good luck. Spray the mixture every Tuesday and Thursday, as needed. 4. 50 g of all: Hierba del Lucero, Hierba del Este, Ambrocilla, Senorita, Caballero, Pega Pega, Siempre Viva, Carpintero, Waime Waime, Piri Piri (Hembra y Macho), Hierba del Buen Querer, Hierba del Oro, Hierba de la Plata, Hierba del Halago, Sigueme Sigueme, Hierba del Negocio boil into 5 – 7 L water and boil for 20 min then add a bit of the following perfumes: Cariño, Dios de la Huaringa, Dios de la Felicidad, San Antonio, Macumba Pusanga, Gran Jefe, Mil Flores, Llama Plata, and Ekeko and let it cool before bathing. Bathe 2 times (Tuesdays and Fridays only) every 3 months. 	1. Nervous system, Nerves, Insomnia, Depression, Pain of love, Anxiety, Arthritis, Blood, Mal de susto 2., 3., 4. Spiritual Flowering, Good luck	EHCHL117, TRUBH35, RBU/PL262, ISA57, JULS25, ISA147(103a), VFCHL20, GER170

RUBIACEAE						
Arcytophyllum nitidum (H.B.K.) Schlecht.	Hierba de la Madrugera	Whole plant, fresh	Seguro	Seguro, 1/5 of the plant per flask.	Do not spend too much money, So that you do not spend on unnecesary items	ISA144(94a)
RUTACEAE						
Citrus aurantium L.	Hojas de Naranja	Small Leaves and Stems, dried	Oral	5 g per 1 l water, boil and mix with Bolsilla de Menta, Anís. Drink 3 times a day for 1 week.	Nerves	EHCHL105
Citrus limetta Riso	Lima	1. Flowers, fresh 2. Fruit, fresh	1. Oral 2. Topical	 Boil 1 I of water, then add 10 g of the Lima Flowers. Combine with Manzanilla, Hinojo, Toronjil, Romero, Borraja, Madre Selva, and Violeta. 1 glass 3 to 4 times a day for 1 month. Once the limes are cut, the shaman sucks out the lime juice and sprays toward patient. 2 limes per person. The mixture is used during rituals to calm angry patients by sweetening their hearts, taking their bitternes away, and leaving them refreshed. 	1. Nerves 2. Spiritual Flowering, Sucking the pain away, Refreshing the patient, Taking bitternes away	JULS182, GER177
Citrus limon (L.) Burm. f.	Limon	1. Flowers, fresh 2 Fruit and Fruit Peel, fresh	1. Oral 2. Topical	 Boil 1 I of water, then add 5 g of the Limon flower. Combine with Manzanilla, Toronjil, Pimpinella, Violeta, and Claveles. Let the mixture sit for 2-3 min. Take 1 glass, 3 - 4 times a day for 1 month, or as needed. Place 7 green limes in a pot with 4 I of water. Boil the mixture until limes turn yellow, then remove the water and let it cool down until it becomes lukewarm. Add 1 tablespoon of sugar to the temperate water. Apply mixture as a Baño de Florecimiento and a rub. Take 2 limes that were submerged in the water and pray while rubbing limes over patient's body. Repeat until 1 lime is left. With 1 lime, pray the phrase "Que salga lo negativo y entre lo positivo para mi hogar, trabajo, amor, etc.". Finish by rubbing the final lime over the patient's body. Discard of all the limes. After bath you may rinse with cinnamon water. Bathe 3 times: that Tuesday, Friday and the following Tuesday. 	t 2. Good luck	JULS183, GER11
Citrus reticulata Blanco	Mandarina	1. Flowers, fresh 2. Fruit Peel, fresh	1., 2. Oral	Boil 1 I of water for 2 - 3 min. Add Mandarina and 10 g of Mejorana, Toronjil, Pimpinela, Poraja and Manzanilla. 3 times a day for 1 month (1 cup).	Nerves	JULS191

Citrus sinensis (L.) Osbec	Citrus sinensis (L.) Osbeck Naranja		Oral	1 I water + 10 g herbs, 5 g of Orange flower in boiling water. Let it sit covered for 3 min. Mix with Melissa, Claveles, Manzanilla, Mejorana, Chancas de Comida and Romero. Drink lukewarm, 3 cups per day for 1 month.	Depression, Nerves, Insomnia, Anxiety ache	JULS202, GER178
Gardenia augusta (L.) Merr.	Jasmin, Margarita	Leaves, Stems, Flowers, fresh		 1. 1 I of water and 10 g of the flower. Place together and boil water over and leave for 2 to 3 min. Drink and gargle the solution.2 to 3 times a day for 2 to 3 days or gargle 3 times a day for 2 days. 2. In 3 I of water soak 100 g of Margarita and 100g of Rose petals, let it soak for about a day then add 1 bottle of Agua Florida and 1 bottle of your favorite perfume. Rub body with Flowers, rinse with perfumed water and air dry. Do not use soap or towel. 2 times a week for 7 days. A commercially available perfume of Jasmin can also be used. 	Nerves Improvement of health, Love, Economy	JULS175, GER98, GER105
Ruta graveolens L. SALICACEAE	Ruda, Ruda (Macho y Hembra), Hierba del Quinde	Whole plant, fresh	1., 4. Oral 2. Topical 3. Seguro	1. Boil 1 I of water with one whole Ruda Hembra plant and Agenciana, Corpus Way, Salvia, Oregano, Molle, Eucalipto, Altamisa, Ajenco and Culantrillo. Allow to boil until there are 3 cups of solution left. For Abortyion use pure Ruda. Patient should drink hot solution. Drink in the morning and at night for 2 days. Be careful when ingesting because herb is extremely hot. 2. Bundle the herbs together with Gallinazo, Flor de Retama, Flor de Chochos, Clavel Blanco, Manzanillon, Romero, Agua del Susto, Rosas Blancas, Rosas Amarillas, Rosas Rojas, white sugar, Hierba de la Justicia, Hierba de la Plata, Hierba de la Fortuna, Hierba de Oro, Juice of 3 limes, Perfume "Tabu", Agua Florida and crystallized rock. Rub patient 3 times per month on Tuesday, Friday, and the following Tuesday. 3. Whole plant per seguro. 4. Crush 20 Leaves and drain the extract. Drink extract at room temperature or mix it with a glass of water. 3 - 4 drops 1 time only.	1. Good luck, Fright / Susto, Depression, Bad Air / Mal Aire, Nerves 2. Fright / Susto, Success, Aphrodisiac, E Envy, Improve business Bad luck, Improve life IS So that all goes well), G To open a door that neve again, To obtain success 4. For babies who cry to much and/or can not be tranquil.	TRUVan/Eric a20, HCHL128, , VFCHL16, A145(108a 3. ER24 for you, er closes
Populus deltoides Bartram	n Alamo	Leaves, fresh or dried	r Oral	Boil 1 I of water, with 10 g of material. Add Manzanilla, Toronjil, Pimpinella, Hinojo, Chancas de comida and Cascara de Membrillo. Let mixture sit for 2-3 min. Drink warm, 1 cup, 3-4 times a day for 1 month.	Heart, Nerves, Anxiety	JULS93
Salix chilensis Molina	Sauce	Leaves, fresh	1. Topical 2. Oral	 Smash Leaves for juice, apply as enema once. Do not ingest. Use only when the patient is very sick. Boil 10 g of Sauce and 10 Fruits of Capuli in 1 I of water for 30 min. Drink warm, 1/2 small cup every time the patient has chills. 	1., 2. Hangover fever	TRUBH25, JULS82, GER39

SAXIFRAGACEAE Escallonia pendula (R. and Chuque P.) Pers.	1. Leaves, dried 1., 2. Topical 2. Leaves, fresh		., 2. Sorcery, Susto of Jeath	ISA23, ISA63
SMILACACEAE Smilax medica M.Martens Zarzaparilla, and Galeotti Zarza Parilla	Stems, dried Oral	In 1 cup of water boil 20 g of Zarzaparrilla plus 20 g of Ba Congona, Chajur, Matico and Cola de caballo for 5 min. Drink in the morning while fasting. 1 cup 3 times a day for 1 month in the morning before breakfast. Repeat if necessary.	ad Air / Mal Aire	GER218, JULS273
SOLANACEAE Brugmansia arborea (L.) Lagerheim Mishia Colambo, Misha Morada, Mishia Blanca, Mishia Rastrera, Floripondio, Datura, Misha To	dried 2., 5., 6. 2. Whole plant, Topical fresh 3. Flowerss and	Maique in 1 cup of water until water is reduced to 1/2 cup. Drink cold. Patient should be kept in a dark and quiet room and on a diet of no seafood or spices for 3 days. Afterwards the patient may leave the room, but should rest indoors for 3 more days. 1 small cup 1 a day for 3 days. 2. Bath mixture for Protection from Evil, see below. 3 times a day Tuesday - Friday - Tuesday.	nhancement . Bad Air / Mal Aire . Wounds on the heel, llcers caused by orcery	GER64, VFCHL18, GER50, JULS157, GER52

Brugmansia candida Persoon	Mishia Rosada, Miaha, Misha Blanca, Misha	1. Leaves, fresh 2. Leaves, dried 3. Whole plant,		1. Add 2 leaves of the plant material, 1 leaf of Misha Amarilla, 1 leaf of Misha Blanca, 1 leaf of Rosada, 1 g of Toromaique and 1g of Toromisha to 1/2 cup of water. Boil the mixture for 5	Bad Air / Mal Aire, Diarrhea, Hallucinogen to see	GER54, RBU/PL316, RBU/PL327,
	Amarilla, Huargua	fresh		min. Drink the mixture cold. Patient must stay in a dark room for 3 days while maintaining a diet without spices. Three days afterwards, rest. Exceeding the doseage is lethal. Take 1/8 of a small glass. 2. Grind and pulverize the leaves. Place the powder on affected area until healed. 3. Bath mixture for Protection from Evil, see below. Bathe once. Mixture can also be taken orally.	Wounds on the heel, Ulcers caused by Sorcery Protection from evil	RBU/PL328, GER51, GER77
Brugmansia sanguinea (Rand P.) D. Don.	. Mishia Galga, Misha Rastrera, Misha Guargan, Misha Roja, Guar Guar Rojo, Floripondio, Mishia Roja	1., 2. Leaves and Stems, fresh 3. Flowers and Leaves, fresh	1., 3. Oral 2., 3. Topical	1. 1/2 cup of water and 50 g of Mishia Galga and boil for 3 min. Drink cold, on time only. 2. Boil 6 I of water with 10 g each of: Mishia Blanca, Mishia Colambo, Mishia Galga, Mishia Morada, Mishia Roja, Mishia Rosada, Agua de Susto, Hierba del Gallinazo, Flor de Choclo, and Toro Maique for 5 min. Recite a prayer. Bathe the patient in the mixture while rubbing him/her with the herbs. Afterwards, rinse the patient in water, and allow him/her to air dry. 3 times a day Tuesday - Friday - Tuesday. 3. Boil 6 I of water with 10 g each of: Mishia Blanca, Mishia Colambo, Mishia Galga, Mishia Morada, Mishia Roja, Mishia Rosada, Agua de Susto, Hierba del Gallinazo, Flor de Choclo, and Toro Maique for 5 min. Recite a prayer. Bathe the patient in the mixture while rubbing him/her with the herbs. Afterwards, rinse the patient in water, and allow him/her to air dry. 3 times a day Tuesday - Friday - Tuesday.	3. To look into the other	EHCHL10, VFCHL23,
Capsicum chinense L.	Aji Panca	Fruit, fresh	Incense	1 kg of Aji Panca plus 1/2 kg sulfur mix and place on top of hot burning charcoal and let the smoke spread. At this time do the spiritual prayers. Smoke should spread around the house, room by room. None should be in the house but the shaman alone doing the spiritual prayers.		GER203
Capsicum rhomboideum (Dunal) Kunze	Aji Colorado	Whole Fruit, fresh	1. Charm 2. Topical	1. Place 3 peppers (green, yellow and red), tie with red ribbon and Ruda (female and male). To be used for protection against envy. Place bunch behind the door of the house. When no longer needed, dispose into the ocean or river. Hang 1 bunch behind door until no longer needed. If in 2 days the peppers in the bunch turn bad, there is a "mal" in the house. 2. Wrap one Aji and one whole egg in Algodon Pardo. Rub/ Frotar, Rub the body with water and herbs. Use the prepared bundle to rub the patient from head to toes. Then take Aji and Algodon Pardo far from the house and burn. Crack the egg, and let content fall in a glass with water for further diagnosis.	1., 2. Evil eye/ Mal ojo, 3 Protecting the patient from envy	ULS91

Cestrum auriculatum L'Herit	Hierba Santa, Agrasejo	Leaves, fresh o dried	r 1. Topical 2. Oral 3. Incense	 Boil 1 bundle (20 g) Hierba Santa per 3 I water. Combine with Quinual, Eucalipto, and Romero de Campo. Wash with herbs and bathwater or use for limpia. 3 times per month as needed. 5 g per 1 I with Corpus Way, Carqueja, and Flor de Overo. Drink 1I / day 200g of herb placed over hot charcoal. Inhale the smoke produced. 1 time or as needed. 	1. Relaxant, Fright / Susto 2. Fright / Susto 3. Bad Air / Mal Aire, Sending away bad shadows	JULS166, RBU/PL281, EHCHL172, ISA122, GER174, EHCHL102
Datura ferox L.	Chamico	Leaves, dried	Oral	Ground and boiled. Buy after 6pm so that it is fresh. Dry 2 leaves, then grind into a powder. Add 1 cup of boiling water. Let sit for 3 min. Drink hot to lukewarm as needed. Too much could kill someone.	Bewitching men, Lowering moral	JULS131
Jaltomata sp.	Gato Simuro	Leaves and Stems, fresh or dried	1. Oral 2. Topical 3. Seguro	 Boil 10 g of Hierba del Tigre, 10 g of Hierba del Oso, and 10 g of Semora Negra, 3 Leaves of Toro Simuro, and 3 Leaves of Mishia Amarilla in 1/2 cup of water for 5 min. Very strong compound. Do not exceed the dosage. 1/8 cup 1 time only. Ur Drink cold. Patient should stay inside the house without any yor noise for 3 days. Should also observe a diet (no spices (cur or seafood). Bath mixture for Protection from Evil, see below. Only once 3. 2 small branches per seguro. 	f Fragrance, Good luck fo work, Daño (prevention) ndo bad things done to ou, Strength, Maldad light re), Evil eye/Mal ojo 2. Protection from evil	r
Juanulloa ochracea Cuatrecasas	Cuya Cuya	Seeds, dried	Toical	Grind and grate 1 Seed with Agua Forida, Timolina, and Alcohol. As needed.	Bad Air / Mal Aire, Pain anywhere on the body	EHCHL154
Lycopersicon hirsutum Dunal	Ambulluco de Muerto	Whole plant, fresh or dried	Topical	Mix with Flores de Muerto, Zanahoria de Zomo, Poleo Gentil, Bully Vinegar, 7 Espiritus, Agua del Susto. Limpia, 2 times a week.	Susto of Death/ Susto de muerte	ISA31
Nicotiana tabacum L.	Tabaco	Leaves, dried	Oral	Mix 1 g of Tabaco with Agua Florida, lime juice, Ramillete de Novia, white sugar, Agua Bendita, Cañazo, Agua Florida and Agua Cananga. Let mixture sit for 2 h. Both shaman and patient inhale mixture through nose during rituals.	1. Improving vision and insight during rituals, Suspend the patient (te voy levantando), Raise the energy of the patient	JULS251, GER92
Solanum americanum Mill	l. Hierba Mora, Hierba del Susto, Baja del Espanto, Semora		1. Oral 2. Topical	1. Boil 1/2 cup of water with 100 g of plant material for 5 min, mix with Toronjil, Mejorana. Drink 1/4 cup, 1 time only. 2. Bath, Boil 5 I of water with 100 g of: Hierba del Susto, Hierba del Gallinazo, Romero, Paja del Aire, Ashango, Ishpingo, Samalas, Flor de Muerto and Ruda. Boil for 10 min. First rub your body with the leaves. Second, rinse with the water. Do not use soap or water to dry. One bath Tuesday or Fridays only.	1., 2. Fright / Susto	EHCHL125, JULS76, EHCHL87, GER85, GER159

Solanum mammosum L.	Macumamuna, Toro si Muere, Toro Mishia Negro, Toro Mishia Amarillo, Toro Simuro	1. Fruit, fresh 2. Leaves, fresh 3. Whole plant, fresh	1., 3. Topical a 2. Oral	 Use whole Fruit with Agua Florida. Boil for 20 min. 1 bath per week, for 1 month. Plant is highly toxic. Boil 100 g of Toro Mishia Amarillo in 1 cup of water for 10 min. Drink 1 cup, cold. Bath mixture for Protection from Evil, see below. 	Good Luck Bad Air / Mal Aire Protection from evil	VFCHL45, GER56, GER55, GER153
Solanum sp.	Tutapure Chico	Leaves and Stems, fresh	Topical	1 handful boiled with 3I water. Mix with Agua del Susto and 7 Espiritus. Can combine with Tutapure grande, Tutapure blanco, Zanahoria. Bathe, twice per month or 1 - 2 times a week, depending on severity. More often used for children.	Susto of Death, Haunting of a ghost	ISA3
Solanum sp.	Hornamo Simuro	Whole plant, fresh or dried	Topical	Bath mixture for Protection from Evil, see below. Only once.	Protection from evil	GER238
TILIACEAE						
Tilia platyphyllos Scop.	Tilo	Flowers and Leaves, fresh	Oral	Boil 1 I of water, then add 10 g of Sauco. Add Manzanilla, Hinojo, Coleo, Ajenjo, Toronjil, Pimpinela and Claveles. Cover and let it sit for 2 - 3 min. Patient should drink warm solution, 3 - 4 cups per day for 1 month.	Nerves, Insomnia	JULS257
ULMACEAE						
Celtis loxense C.C. Berg	Palo Huaco, Palo Blanco	Bark, Stems and Leaves, dried	Topical	Bath, Boiled for 5 min. 1 handful in 3 l water. Can combine with Conchalay Blanco, Tutapure de Estrella, Timolina and Agua del Susto. 3 baths per week.	Susto of animals, Susto of water, Susto in adults	
URTICACEAE						
Urtica urens L.	Ortiga	Stems and Leaves, fresh	Topical	7 Stems with their Leaves boiled with $3-5\mathrm{I}$ water, combined with Agua del Susto, Ajenco, and Llatama for 20 min. Bath, $2-3\mathrm{times}$ per week, at 7,9, and 11 PM.	Bad Air / Mal Aire, Prostate, Fright / Susto, Business, Casting away bad luck, Freight in children / Susto en niños	RBU/PL299,
VALERIANACEAE					ormatorry education runned	•
Phyllactis rigida (R. and P.) Persoon	Hornamo Estrella, Siete Sabios, Valeriana Estrella. Valeriana, Hierba de la Estrella		1. Seguro 2., 4., 5., 6. Topical 3. Oral	 Mix with other herbs of strength, herbs of luck for seguro. 20 g per 5 l, boil 20 min; mix with other herbs of strength and herbs of luck Bathe 3 times a week. Boil 1 l water, then add 10 g Valeriana Estrella. Drink 4 times per day, as needed. Children can not take it very often (start taking at 6 years). Combine with Timolina, Bully vinegar, Agua Florida, and Arnica. Put on the back of the head, or afflicted area. Put it on 	1. Fragrance, Good luck To always shine 2., 5., 6. Spiritual Flowering, Good luck, Bad Air / Mal Aire, Success 3. Insomnia, Relaxant, Sleep aid, Nerves,	EHCHL163, TRUBH30, JULS57, EHCHL44, JULS46, ISA137, RBU/PL365, RBU/PL355,

				daily through the night. 5. Alternatively in a bottle place 1 g of each of the following: Hierba del Lucero, Hierba Este, Ambrocilla, Senorita, Caballero, Pega Pega, Siempre Viva, Carpintero, Waime Waime, Piri Piri (Hembra y Macho), Hierba del Buen Querer, Hierba del Oro, Hierba de la Plata, Hierba del Halago, Sigueme Sigueme, Hierba del Negocio. 1 bottle of perfume "Cariño" and a bit of the following perfumes: Dios de la Huaringa, Dios de la Felicidad, San Antonio, Macumba Pusanga, Gran Jefe, Mil Flores, Llama Plata, and Ekeko. Some spiritual prayer invoking the name of the patient, owner of the seguro. Fogear. Spray and rub the patient with the mixture for good luck. Tuesdays and Fridays. 6. 50 g of all: Hierba del Lucero, Hierba del Este, Ambrocilla, Senorita, Caballero, Pega Pega, Siempre Viva, Carpintero, Waime Waime, Piri Piri (Hembra y Macho), Hierba del Buen Querer, Hierba del Oro, Hierba del Negocio boil into 5 – 7 L water and boil for 20 min then add a bit of the following perfumes: Cariño, Dios de la Huaringa, Dios de la Felicidad, San Antonio, Macumba Pusanga, Gran Jefe, Mil Flores, Llama Plata, and Ekeko and let it cool before bathing. Bathe 2 times (Tuesdays and Fridays only) every 3 months.	Headache, 4. Contusions, Mental disorders, Schizophrenia, Cerebral pain	GER187
Belonanthus aff. hispidus (Wedd.) Graebn.	Boton de Oro	Whole plant, fresh or dried	1. Topical 2. Seguro	1. 3I water with 10g of Boton de Oro, and 10 g each of Hierba de la Justicia, Hierba del Halago, Hierba de la Plata, Hierba de la Fortuna, Dolar, Sigueme Sigueme, boil 3 min, add Agua Florida, Agua Tabu, white sugar, and Lime juice. Bathe 3 times a week, on Tuesday, Friday and Tuesday. 2. Prepared with perfumes and the typical Seguro herbs. One Seguro, refill perfumes as needed, keeps its power as long as filled.		JULS299
Valeriana bonplandiana Wedd.	Fortuna	Whole plant, fresh or dried	Topical	10 g per 1 l boiling water, 2 baths per month, during the evening.	Fragrance, Good Luck	RBU/PL350
Valeriana plantaginea Kunth	Hornamo Morado, Hornamo Caballo, Horno Morado	Leaves and	1. Oral 2. Topical	1. Boil 10 g Hornamo Morado with 1/2 cup water for 2 min. Patient should drink cold solution. 1/2 cup 1 time only.	Bad Air / Mal Aire, Purgative, Laxative Protection	GER193, EHCHL91, EHCHL120

VERBENACEAE						
Aloysia triphylla (L. Her.) Britt.	Cedron, Pepas de Cedron, Sidrón,	1. Whole plant, fresh 2., 3., 4. Seeds, fresh or dried	2. Topical	 Boil 1 I water, then add Cedron, and mix with Chancas de Comida, Toronjil, Hinojo, Madre Selva, Claveles, and Pensamiento. Use a total of 10 g for all the material. Let the mixture sit for 2 - 3 min. Patient may drink solution at all temperatures, but it is recommended to drink while lukewarm. Take 1 cup, 3 - 4 times a day for one month. Grind 4 - 5 Seeds and boil in 5 I water. Bathe. Boil 1 Seeds per 1 I, drink 4 cups per day, 7 days. Mix the grind of 10g of Seeds, 1/4 of a small cup of pisco, 1g of Alucema, 1 g Oregano and 1 g of Pimienta. Warm up. Drink 1 tablespoon a day for 6 days. 	1. Depression, Nerves, Insomnia 2., 3. Bad Air / Mal Aire 4. Sharp pain in the body	JULS130, RBU/PL384, EHCHL161, RBU/PL305, GER90
	Llatama Blanca	Leaves and Stems, dried	Oral	Boil 1 cup of water in 100 g of plant material for 10 min. Drink cold, 1/4 cup 2 times a week.	Quema rastro, Feet blisters	GER82
VIOLACEAE						
Viola tricolor L.	Pensamiento Amarillo, Hierba del Pensamiento, Hierba del Tacón	Whole plant, fresh or dried	Oral	Boil 1 I water, then add 10 g Pensamiento Amarillo, used with plants for the heart, including Toronjil. Drink 3 cups per day as needed.	Pain of love, Nerves, Insomnia, Forgetting pain, Fright / Susto, Bad Air / Mal Aire, Nerves, Epilepsy	JULS36, VFCHL19
XYRIDACEAE						
Xyris subulata R. and P.	Hierba del Caballero, Chupa Flor	Stems, fresh	1. Seguro 2. Topical	 Standard Seguro mixture, see below. Standard mixture for Spiritual Flowering, see below. 	1., 2. Asking that a woman become your RE love, Fragrance, Good J luck, Good business, GE Protection, Good fortune, Good health	ULS300,
ZINGIBERACEAE					Torraine, Good Health	
	Chima Pampana	Tuber, fresh	Topical	Use the red or purple tuber. Grate to create a light perfume, 1 half a tuber per ointment container. Mix with Cariño perfume. Place perfume on the body as needed.	To get a female sexually interested, To get a male sexually interested To trap a man	
INDET.					4.0.0.5:1./0	DD11/D1 070
	Samala, Asmala, Amara	Seeds, dried or fresh	1. Topical 2. Oral 3. Blown on patient	 Bath, 20 Seeds per 5 I water, ground and boiled. 3 times pe week, or 2 a month, Tuesday and Friday. Beverage: 7 - 15 Seeds per 1 I water, crushed and macerated for 8 days. 3-4 small cups per day, 7 days. Seeds can be also macerated in alcohol for 5 days, then 1 Tbsp, 3 times per day. 	r 1., 2., 3. Fright / Susto, Bad Air / Mal Aire, Nervous system, Enchantment, Sorcery, Getting rid of daño, Epilepsia	RBU/PL378, EHCHL158

	Anti Ajo	Anti Ajo Stems, fresh Charm 2 I of water with 40 cm of the Anti Ajo Stems. Boil 3 h. Let it sit Sorcery within a 5 min. Use Ruda (Hembra and Macho) and dip into tizana. Use Ruda to distribute the solution to every corner of the house, always going from right to left. Splash the remainder of the solution in front of the house.							
	Huarate	Stems, dried	Oral	Boil 1 I of water, then add 10 g total of Manzanilla, Toronjil, Pimpinela, Hinojo, and the Huarate Stems. Let mixture sit for 2 min. Patient should drink lukewarm solution. 1 cup 3 to 4 times a day for one month. Also used by bad shamans for daño and burn anything that can trail it back to them.	3	JULS173			
Trichilia?	Pucho	Leaves and Seeds, dried	Oral	Gather Jan-Feb, when there is 'pollen'	Nervous system	RBU/PL380			
Standard Seguro mixture:	1 small Stems per seguro. Mix all of the of the following in a bottle of perfume: 3 Stems and Leaves of Hierba de la Señorita Hierba del Buen Querer, Palmerilla, Destrencilla, Lanzetia, Hierba del Carpintero, Pega-Pega, a bit of the following:, Palmerilla, Destrencilla, Lanzetia, Siempre Viva, Hierba de la Fortuna, Hierba del Tesoro, Hierba de la Plata, Hierba del Cariño, Guaime-Guaime, Piri- Piri, Hierba del Caballero, Hierba de la Justicia (amount depends on the size of the bottle). Add perfume "Cariño" and a bit of the following perfumes: Dios de la Huaringa, Dios de la Felicidad, San Antonio, Macumba Pusanga, Gran Jefe, Mil Flores, Llama Plata, and Ekeko. The Shaman will then bless it and Fogear. Keep the seguro bottle at home, or if is small enough carry it with you at all times.								
Standard mixture for Spiritual Flowering:	3 I water, boil for 30 min with 10 g Chupaflor, and 10 g each of Hierba del Buen Querer, Palmerilla, Destrencilla, Lanzetia, Hierba del Carpintero, Pega Pega, Siempre Viva, Hierba de la Fortuna, Hierba del Tesoro, Hierba de la Plata, Hierba del Cariño, Guaime Guaime, Piri Piri, Hierba de la Señorita, Hierba de la Justicia, Hierba de la Fortuna, El Dolar, Hierba de la Plata, Hierba del Halago, Tabu, Petalo de Rosas Roja, Blanca, and Roja Amarilla. Also add Agua Florida, white sugar, and Lime juice. After boiling add a bottle of your favorite perfume. Hierba de la Plata, Hierba de la Fortuna, white/yellow and red Roses, Agua Tabu, Agua Florida, white sugar, limas juice. Bathe 3 times, that Tuesday, Friday and the following Tuesday. Patient may repeat when needed. Rub the entire body with all the herbs, then rinse with the water and air dry. Do not use soap nor a towel.								
Alternative mixture for Spiritual Flowering:	In 3 I of water boil for 30 min 3 Stems and leaf of Hierba de la Señorita plus a bit of the following: Hierba del Buen Querer, Palmerilla, Destrencilla, Lanzetia, Hierba del Carpintero, Pega-Pega, Siempre Viva, Hierba de la Fortuna, Hierba del Tesoro, Hierba de la Plata, Hierba del Cariño, Guaime-Guaime, Piri-Piri, Hierba del Caballero, Hierba de la Justicia after boiling add a bottle of your favorite perfume, Rub the entire body with all the herbs, then rinse with the water and air dry. Do not use soap nor a towel, only once.								
Bath mixture for Protection from Evil	Boil 6 I of water with 10 g each of: Mishia Blanca, Mishia Colambo, Mishia Galga, Mishia Morada, Mishia Roja, Mishia Rosada and Toro Maique for 5 min. Recite a prayer. Bathe the patient in the mixture while rubbing him/her with the herbs. Afterwards, rinse the patient in water, and allow him/her to air dry.								