

TRADITIONAL MEDICINE OF BAJA CALIFORNIA SUR (MEXICO) II

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Summary

Continuing our studies of traditional medicine, as used in rural areas of Baja California Sur, now we wish to report on the medicinal uses of 49 more plants. Some of the more complex recipes of these medicinal plants, are discussed in the present paper. The information presented here was collected in the Municipio of Los Cabos and part of the Municipio of La Paz, B.C.S., Mexico.

Introduction

The study of traditional medicine of Baja California Sur, was initiated in 1984. The main objective of this project is to recapture the information concerning the use of natural resources with a medicinal purpose, reported in the state of Baja California Sur. This state has four municipalities: The Municipality of Los Cabos, the Municipality of La Paz, the Municipality of Comondu and the Municipality of Mulege. We intend to collect this information in almost all the different localities and communities corresponding to each municipality. At this time, the information obtained by means of interviews and questionnaires, indicates that the remnants of traditional medicine are almost exclusively practiced as home remedies. Some of the elder informants stated that their knowledge of traditional medicine was passed on to them by their forebearers who were *Pericues Encarnación* and *Agúndez*, 1986).

Methodology

The information was obtained by interviewing 92 informants. All of them were over 70 years old, except for 3 people who were about 40 years old. In an effort to obtain information concerning the local name, preparation, use,

administration and effectiveness of medicinal plants, the informants were asked the following questions: Do you use medicinal plants or home remedies to cure your sicknesses? Which kinds of plants do you use? Do they effectively cure your sicknesses? How do you prepare them? How long do you take the remedy? How many times a day do you take it? What dosage do you use?

Most of the time the informants showed us the plants they used, allowed us to keep a sample of them and helped us with the collecting. Each specimen was collected and labeled indicating number, date of collection, locality and medicinal use. Duplicate herbarium specimens were retained at the Marine Biological Department of the Universidad Autonoma of Baja California Sur (Mexico) for identification. Voucher specimens were deposited at the herbarium of the Biological Institute of the Universidad Nacional Autonoma of Mexico.

Results and discussion

The information presented here was collected in different localities and communities of the Municipality of Los Cabos and part of the Municipality of La Paz as indicated in part I (Encarnación and Agúndez, 1986). La Paz is the capital of the State of Baja California Sur and was excluded because of the recognizable influence from mainland Mexico. We have now registered 252 local names of traditional medicinal resources in this area. One hundred twenty medicinal plants have been collected. From these 120 species, 80 have been botanically identified and 49 are reported here.

Common medicinal use of the plants, as agreed by several independent informants from different geographical localities of the Municipality of Los Cabos and part of the Municipality of La Paz, are recorded in Table 1.

Information on the dosages administered was difficult to obtain because the quantity used was repeatedly described unspecifically as "a small amount" and so on. Owing to this uncertainty the amounts of plant matter used in a preparation is not included. The diagnosis presented under the heading "medicinal use" is based on the descriptions of symptoms as related by the informants and are therefore, in several cases, inexact.

In Table 1, the number of informants recommending the use of a certain plant against a specific ailment, divided by the total number of informants mentioning the use of the plant has been included. This data allows an assessment of the distribution of a certain remedy in the area. Although this cannot be taken as "proof" of medical activity or the lack of it, we feel that a widely distributed remedy may be more likely to show activity since so many people rely on it and since the effectiveness must have been tested in many cases. This does not mean that a cure recommended by only a few informants is without validity but may simply reflect the disappearance of this knowledge (Encarnación and Agúndez, 1986).

A tabulation of the main medicinal use of the 49 plants treated in the

TABLE I

TRADITIONAL MEDICINE OF BAJA CALIFORNIA SUR (MEXICO) II

Col. no.	Local name	Botanical name	Plant part	Medicinal use	No. of informants	Preparation	Administration
ACANTHACEAE							
40	Cordoncillo	<i>Elytraria imbricata</i> (Vahl) Pers.	Whole plant	Fever Kidney ache Cystitis/urethritis Menstrual colic Parturient's colic	3/17 3/17 10/17 1/17 1/17	Decoction	As tea until the person feels better
51	Nicle	<i>Jacobinia spicigera</i> (Schlecht.) Bailey	Branches	Diarrhoea and stomachache Kidney ache Fever Constipation	18/25 1/25 1/25 3/25	Decoction	As tea until recovery
ANACARDIACEAE							
35	Lentisco	<i>Rhus laurina</i> Nutt.	Leaves	Wounds Rheumatism Paralysis	1/3 1/3 1/3	Decoction	Used for bathing followed by application of the boiled leaves on the area in pain
ARISTOLOCHIACEAE							
35	Hierba del Indio	<i>Aristolochia brevipes</i> Benth.	Root	Amoebas Warm Diarrhoea Stomachache Diabetes Fever Malaria	2/64 3/64 7/64 49/64 6/64 3/64 2/64	Decoction	As tea until recovery as poultice for 7 days
BURSERACEAE							
58	Torote blanco	<i>Bursera odorata</i> Brandegee	Gum	Poisoning dogs Scorpion stings	4/7 1/7		Mix with meat or rubbed the gum on the stings

TABLE 1 (continued)

Col. no.	Local name	Botanical name	Plant part	Medicinal use	No. of informants	Preparation	Administration
67	Tórote colorado	<i>Bursera microphylla</i> A. Gray	Branches Gum	Stomachache and constipation Wounds and bruises Pimple	1/4 2/4 1/4	Decoction	As tea, washing the wounds, applied the gum on the pimple
CAPPARIDACEAE							
61	Jubaibena	<i>Atamisquea</i> <i>emarginata</i> Miers	Branches	Rheumatism Toothache Cough	2/4 1/4 1/4	Roasted and ground Decoction	Applied to the aching area, used for bathing
CAESALPINIOIDEAE							
56	Junco	<i>Parkinsonia</i> <i>aculeata</i> L.	Branches	Cystitis Urethritis Kidney infection	7/8 1/8	Decoction	As tea until recovery, instead of water for 9 days
CAPRIFOLIACEAE							
86	Sauco, sauce	<i>Sambucus</i> <i>mexicana</i> Presl ex DC.	Branches and flower or root	Cold Fever Cough Bronchitis Rabies Wounds	7/15 2/15 4/15 1/15 2/15 1/15	Decoction	As tea until the symptoms disappear
COMPOSITAE							
111	Chicura	<i>Ambrosia</i> <i>ambrosioides</i> (Cav.) Payne	Root or leaves	Abortive To fortify the uterus Rheumatism Stomachache	3/66 44/66 8/66 3/66	Decoction of root	As tea of instead of water for 9 days after child birth

68	Zarzaparrilla	<i>Eclipta alba</i> (L.) Hassk.	Branches	Headache Cold Varicose vein Kidney pain	8/66 1/66 1/66 1/1	Roasted leaves	Applied to the area in pain
46	Hierba del Pasmó	<i>Haplopappus sonoriensis</i> (A. Gray) S.F. Blake	Branches	Skin ulcer Toothache Cough Tetanus Bad smelling feet Wounds	1/29 8/29 1/29 3/29 2/29 2/29	Decoction	Instead of water until recovery
47	Romerillo	<i>Hymenoclea monogyra</i> Torr. & Gray	Branches	Paralysis Tetanus	1/3 1/3	Decoction	Bathing, as tea
66	Manzanilla del monte	<i>Pertyle microglossa</i> Benth.	Root	Veneral diseases	1/1	Decoction	Instead of water during 9 days As tea
92	Envidia	<i>Sonchus oleraceus</i> L.	Whole plant	Kidney	1/1	Decoction	
38, 82,89	EUPHORBIACEAE Golondrina	<i>Euphorbia nutans</i> Lag. <i>Euphorbia</i> aff. <i>polycarpa</i> Benth. <i>Euphorbia</i> spp.	Leaves or branches or whole plant	Pimple Bites of poisonous snake and scorpion Skin ulcers Conjunctivitis Wounds Urethritis, cystitis Kidney ache Stomachache Cold	1/37 5/37 8/37 5/37 5/37	Decoction	Washing the infected area
65	LABIATAE Chicura de la Sierra	<i>Lepechinia hastata</i> (A. Gray) Epling	Root	Uterine infections	1/1	Decoction	After the 2nd day of finishing the menstruation, during 5 days the tea is taken

TABLE 1 (continued)

Col. no.	Local name	Botanical name	Plant part	Medicinal use	No. of informants	Preparation	Administration
50	Poleo	<i>Mentha</i> sp. different from <i>Mentha spicata</i> L.	Branches	Cold Sinusitis Stomachache Headache Diarrhoea Cough Bronchitis	2/20 6/20 6/20 2/20 1/20 5/20 1/20	Fried in oil or hen's fat with <i>tezo</i> : <i>Acacia</i> sp. Decoction	before breakfast and before going to sleep 2-3 drops applied in the nostrils As tea
100	Albahaca blanca,	<i>Ocimum basilicum</i> L.	Leaves or seeds	Earache Stomache Stop vomit Insomnia Newborn colic Washing the eyes	8/19 7/19 2/19 1/19 1/19 2/19	Sap of leaves Decoction	Put in the ear and rubbing the ear, as tea
LEGUMINOSAE							
55	Guinole	<i>Acacia cochliacantha</i> Humb & Bonpl.	Branches	Kidney ache cystitis and urethritis	2/3 1/3	Decoction	As tea
59	Tezo	<i>Acacia</i> sp.	Bark	Earache Sinusitis	2/4 1/4	Fried in oil	Applied in the ear
94	Tabardillo	<i>Calliandra californica</i> Benth.	Root, flower, together or separate	Kidney ache Cystitis Urethritis Calculus in liver	14/32 18/32 1/32	Maceration in water or decoction	As tea or instead of water until recovery
127		<i>Calliandra peninsularis</i> Rose		Leg cramp	1/32		
29	Hoja sen	<i>Cassia confinis</i> Greene	Leaves	Toothache Purgative Stomach troubles	1/32 4/8 3/8	Decoction	As tea

107	Chilicote or Colcho	<i>Erythrina flabelliformis</i> Kearney	Branches	Kidney ache Vaginitis	1/2	Roasted	Applied to the area in pain
104	Palo fierro	<i>Pithecellobium confine</i> Standley	Fruit or bark	Poisonous animal stings (snake, bee, scorpion)	10/13	Decoction with <i>Euphorbia</i> spp. or <i>Wislizenia refracta</i> var. <i>palmeri</i> (A. Gray) I.M. Johnston	As tea or instead of water, washing the wounds
157	Ejotón			Bruises Wounds	1/13 2/13		
99	Guamuchil	<i>Pithecellobium dulce</i> (Roxb.) Benth.	Shoot bark	Stomachache Cold and sinusitis Toothache	1/15 2/5 2/5	Fried in oil hen's fat with poleo (<i>Mentha</i> sp.) and <i>Matricaria camomilla</i> L.	Two drops applied in the nostrils
19	Hierba del pujo	<i>Stylosanthes viscosa</i> Swartz	Branches	Diarrhoea and stomachache	11/11	Decoction Decoction	To gargle, as tea As tea until the symptoms disap- pear
98	LOGANIACEAE Lengua de Buey	<i>Buddleia crotonoides</i> A. Gray	Root	Appendix	1/1	Decoction	Instead of water
108	Matanel,	<i>Mascagnia</i>	Root or branches	Wounds	2/9	Decoction	As tea, used for bathing until recovery, to gargle
151	Gallineta	<i>macroptera</i> (Sessé & Moc.) Niedenau		Rheumatism Abortive Bruises Tonsillitis	7/9 1/9 1/9 1/9		
83	OLACEAE Fresno	<i>Fraxinus uhdei</i> (Wenz.) Ling.	Bark	Rabies	1/2	Decoction	Instead of water for 40 days

TABLE 1 (continued)

Col. no.	Local name	Botanical name	Plant part	Medicinal use	No. of informants	Preparation	Administration
		PASSIFLORACEAE					
102	Granada china	<i>Passiflora edulis</i> Sims	Root or flower	Nervous	2/2	Decoction	As tea before going to sleep
		PHYTOLACCACEAE					
33	Vomitivo	<i>Stegnosperma halimifolium</i> Benth.	Fruits	To provoke vomit in persons with rabies	3/3	Ground to drain the juice	Drinking the juice
		POLEMONIACEAE					
39	Guachichila or guichichila	<i>Loeselia ciliata</i> L.	Whole plant or branches	Arm ache Influenza Cold Fever Measles Malaria Stomach troubles	1/56 1/56 20/56 35/56 1/56 1/56 3/56	Decoction	As tea until recovery
		POLYGONACEAE					
45	San Miguelito	<i>Antigonum leptopus</i> Hook. & Arn.	Branches or roots	Cough Tonsillitis	1/14 12/14	Decoction	To gargle
		PORTULACACEAE					
37	Pionilla	<i>Talinum paniculatum</i> (Jacq.) Gaertn.	Roots, leaves	Stomachache Fever Diarrhoea Gastric ulcer Cold	14/21 5/21 2/21 1/21 2/21	Decoction	Taken as tea until recovery

RUTACEAE

74	Lima chichona	<i>Citrus aff. aurantifolia</i> (Christm.) Swingle	Flower or bank	Stop vomit Blood pressure Circulation Heart troubles Nervous Heart troubles	1/3 1/3 1/3 2/6 3/6	Decoction	As tea or instead of water until recovery As tea
73	Naranja	<i>Citrus paradisi</i> Macf.	Leaves or flower			Decoction	
SAURURACEAE							
60	Hierba del manso	<i>Anemopsis californica</i> (Nutt.) Hook. & Arn.	Leaves	Kidney ache Stomachache or stomach inflammation Wounds or bruises Leprosy Anemia Cold Blood circulation	3/4 2/34 6/34 1/34 7/34 2/34	Decoction	As tea until the symptoms disappear, bathing the wound or as poultice

SOLANACEAE

42	Toloache	<i>Datura discolor</i> Bernh.	Leaves or branches	Pimples Wounds Hemorrhoids Earache Inflammation Rheumatism Cold	8/15 1/15 1/15 1/15 2/15 1/15 2/7	Leaves roasted or fried in oil Decoction	Leaves are applied to the aching area, decoction is used for bathing against inflammation
48	Malabar	<i>Solanum erianthum</i> D. Don	Branches	Cold Diarrhoea Stomach troubles Blood pressure Pimple Erysipelas Dysentery	2/7 3/7 1/7 1/5 3/5 1/5	Decoction	As tea
71	Hierba mora	<i>Solanum nigrum</i> L.	Branches fruit together or separate			Doing a poultice with milk or cartamus oil Roasted leaves	Applied on the infected area
STERCULACEAE							
76	Malvarosa	<i>Melochia tomentosa</i> L.	Root, branches	Cold Cough	3/20 5/20	Decoction	As tea 3—4 times a day until recovery,

TABLE 1 (continued)

Col. no.	Local name	Botanical name	Plant part	Medicinal use	No. of informants	Preparation	Administration
103	Hierba del Cancer	<i>Waltheria americana</i> L.	Branches leaves root	Fever Tonsillitis Diarrhoea Foot ulcer Constipation Poor circulation Wounds Cancer Skin ulcers Rheumatism Stomachache	1/20 5/20 4/20 1/20 1/20 1/20 10/20 5/20 2/20 1/20 1/20	Decoction	To gargle, washing the infected area As tea or instead of water, washing the wounds
43	TURNERACEAE Damiana	<i>Turnera diffusa</i> Willd.	Branches leaves	Cold Fortify uterus Cough To conceive children Aphrodisiac Scorpion stings	2/24 5/24 8/24 1/24 2/24 1/24	Decoction	As tea until desired effects
78	URTICACEAE Chisme or Palo verde	<i>Pilea microphylla</i> Liebm.	Branches	Heartache	1/1	Decoction with nutmeg	As tea
69	VERBENACEAE Confituria	<i>Lantana camara</i> L. (<i>L. velutina</i>) Mart. & Gal.	Branches	Cough Cold Stomachache	1/3 1/3 1/3	Decoction	As tea until recovery

44	Oregano	<i>Lippia palmeri</i> S. Wats. var. <i>palmeri</i>	Branches leaves together or separate Flowers	Newborn colics Cough Cold Bronchitis Cough Cold Bronchitis	3/17 12/17 2/17 1/17 1/3 1/3 1/3	Decoction	As tea
22	Oreganon	<i>Lippia formosa</i> Brandege				Decoction	As tea
ZYGOPHYLLACEAE							
112	Gobernadora	<i>Larrea tridentata</i> Sessé & Moc. ex DC.	Root or branches or bark	Rheumatism Cystitis, urethritis To conceive children Abortive Stomachache and ulcer Foot infection Hemorrhoids Kidney ache Diabetes Blood pressure Anemia Cold and cough Headache	22/49 4/49 3/49 5/49 8/49 4/49 1/49 3/49 1/49 1/49 2/49 1/49 1/49	Decoction Maceration in alcohol	As tea or instead of water until recovery, rubbing the aching area, used for bathing

present study is given in Table 1. In several cases a combination of different plants is used to treat symptoms identical to or different from the primary use. Some examples of the more complex recipes and their use are presented in the following section.

Vomitivo (Stegnosperma halimifolium Benth.)

The fruit of this plant is used in the treatment of rabies. An early diagnosis of rabies is, of course, a very difficult task. Usually in Baja California Sur, rabies is suspected when a person is bitten by a skunk. The skunk is a very shy animal, rarely encountered near settlements; however, now and then it may appear in the villages and behave aggressively. If a person, bitten by a skunk, develops enhanced sensitivity to light and fire, feels bodily unrest and anxiety, and takes to spitting, rabies is considered established. At least two different treatments are known. (a) As narrated by a female approximately 75 years old, the bite is washed with *alca* (spirit of ammonia) and after some minutes rubbed with lemon and salt. The process is repeated daily for 8 days. Starting 3–4 days after the bite, the juice of 25 *vomitivo* fruits is administered to children or of 50 fruits to adults before breakfast to induce vomiting, this treatment is repeated twice every second day. The victim is placed on a diet avoiding fat, meat and alcohol and should keep out of the sun for 40 days during which time the only fluid allowed to drink is an extract prepared by soaking *fresno* (*Fraxinus uhdei* (Wenz.) Ling.), *confituria* (*Lantana camara* Mart. & Gal.) and sugar cane pulp in water placed in a bowl which has been made by carving a piece of *sauco* (*Sambucus mexicanus* Presl ex DC.). (b) The other treatment is described by a 90-year-old man, who claims to have cured 35 cases. The bite is severed and sucked, followed by thorough washing with a decoction of branches of *guatamote* (*Baccharis salicifolia* Ruiz & Pav.) and then placing the leaves used for the decoction over the bite. The washings and applications are continued for 9 days. Juice of *sauco* (*S. mexicana*) is taken before breakfast, three times every second day after drinking a glass of milk to induce vomiting. The affected person is placed on a diet devoid of beans, fat, meat, chile, pepper and alcohol for 40 days. During the 40 days the only fluid allowed is a decoction made from the root of *carrizo* (*Arundo donax* L.), leaves and bark of *fresno* (*F. uhdei*) and branches of *confituria* (*L. camara*). After 40 days the victim is considered cured if all the symptoms have vanished.

Pionilla (Talinum paniculatum (Jacq.) Gaertn.)

Used against *empacho* (stomach troubles); a spoonful of olive oil is followed by a tea prepared from the root of *pionilla* and *hierba buena* (*Mentha spicata* L.). A tea of *pionilla* and whole plant of *guachichila* (*Loeselia ciliata* L.) is used against fever and stomachache.

Golondrina (Euphorbia nutans Lag., Euphorbia spp.)

Is one of the most popular medicinal plants. Decoctions of the whole plant mixed with branches of *guatamote* (*B. salicifolia*), *hierba del manso* (*Anemopsis californica* (Nutt.) Hook. & Arn.), *romero* (*Rosmarinus officinalis*

L.) and bark of *copal* (*Bursera hindsiana* (Benth.) Engler) are used for bathing in the morning against *erisipela* (any kind of skin eruption). A tea prepared from *golondrina* and silk of an ear of green corn (*Zea mays* L.) is used against cystitis and urethritis.

Guachichila or *Guichichila* (*Loeselia ciliata* L.)

The whole plant is used alone or in combination with other plants such as *eucalipto* (*Eucalyptus* spp.) and bark of *quina* (*Colubrina glomerata* (Benth.) Hemsl.) against fever. In other cases a tea prepared from *guachichila*, root of *cholla* (*Opuntia cholla* Weber), *cordoncillo* (*Elytraria imbricata* (Vahl) Pers.), *sauco* (*Sambucus mexicana*), and *borraja* (*Borrago officinalis* L.) is taken until the fever disappears. A decoction of *guachichila*, bark of *quina*, root of *chuchupate* (*Arracacia brandegeei* Coulter & Rose), *eucalipto* (*Eucalyptus* spp.), *gordolobo* (*Anaphalis margaritacea* L.), root of *cholla*, and *borraja* is taken as tea instead of water against common colds until cessation of symptoms. A tea, prepared from *guachichila*, three green lemons (*Citrus* sp.), and *damiana* (*Turnera diffusa* Willd.), is taken against fever three times a day during three of four days. Juice from ground leaves and branches of *guachichila* is used as emetic and is reported as a cure for rabies.

Hierba del Pasma (*Haplopappus sonoriensis* (Gray) Blake)

The plant is used against *pasmo* or tetanus, described by the symptoms that "the whole body is shaking with fever and cold". A tea prepared from a small branch of *hierba del pasmo* and *cilantro* (*Coriandrum sativum* L.) is taken until the symptoms disappear.

Hierba del Indio (*Aristolochia brevipes* Benth.)

Is also used against *pasmo*. According to this recipe a tea is prepared from the root of *hierba del indio*, *cilantro* (*Coriandrum sativum*) and *hierba del pasmo* (*Haplopappus sonoriensis*). The treatment is supplemented with a spoon of oil; besides, sulfur is placed under the finger nails while the tea is taken until disappearance of the symptoms. A tea prepared from *hierba del indio* (*A. brevipes*), *hierba buena* (*Mentha spicata*), and *albahaca* (*Ocimum basilicum*), the surrounding fibers of coconut husk, and *nicle* (*Jacobinia spicigera* (Schlecht.) Bailey) is taken against stomachache. A tea prepared from *hierba del indio*, *hierba buena*, shoots of *mesquite* (*Prosopis* sp.), and occasionally the root of *pionilla* (*Talinum paniculatum*) is taken also against stomachache.

Hierba del pujo (*Stylosanthes viscosa* Swartz)

A tea prepared from this plant alone or in combination with *nicle* (*Jacobinia spicigera*), *hinojo* (*Foeniculum* sp.), the fibers of coconut husk, *cacachila* (*Karwinskia humboldtiana* (Roem. & Schult.) Zucc.) and root of *cholla* (*Opuntia cholla*), is used against diarrhoea combined with fever and stomachache.

Chicura (*Ambrosia ambrosioides* (Cav.) Payne)

After childbirth a tea prepared with the root of *chicura*, *manzanilla* (*Ma-*

tricaria camomilla L.), three flowers of *rosa de castilla* (*Rosa* spp.) and sugar cane pulp is taken in place of water during 9 days. Some people prepare the tea with the root of *chicura* and the branches of *istafiate* (*Ambrosia psilostachya* DC.) or with the root of *chicura* and the whole plant of *cordoncillo* (*Elytraria imbricata*), and take the tea after childbirth instead of water during 40 days.

Albahaca (*Ocimum basilicum* L.)

The alcoholic extract of *albahaca* obtained by maceration in combination with *ruda* (*Ruta graveolens* L.) is used against earache. A decoction of *albahaca*, *manzanilla* (*Matricaria camomilla*) branches of *ruda* and *canela* (*Cinnamomum zeylanicum* Nees) is taken as tea against strong colics until recovery.

Tabardillo (*Calliandra californica* Benth. or *Calliandra peninsularis* Rose)

A tea prepared with flower and root of *tabardillo* in combination with the bark of *palo brazil* (*Haematoxylon brasiletto* Karst.) is taken for heart troubles. After childbirth a tea of *tabardillo* is taken during 40 days as a contraceptive.

Malvarosa (*Melochia tomentosa* L.)

The branches of this plant with *canela* (*Cinnamomum zeylanicum*) and *cilantro* (*Coriandrum sativum*) are boiled and taken as tea against cough. The branches of *malvarosa* in combination with the fibers of coconut husk, *mariola* (*Solanum hindsianum* Benth.) and *golondrina* (*Euphorbia* spp.) is taken as tea for diarrhoea. A tea prepared with root of *malvarosa* in combination with a piece of crushed avocado seed (*Persea* spp.), the fibers of coconut husk, three shoots of *nicle* (*Jacobinia spicigera*) and a branch of *verguenza* (this plant has not been collected yet) is taken for constipation until recovery.

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