

Maireana brevifolia on Fuerteventura (Canary Islands, Spain)

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In 1999 I first found an alien shrubby species of the Chenopodiaceae in Puerto del Rosario, the capital of Fuerteventura. At the same time Stephan Scholz (El Esquinzo, Fuerteventura) showed the same species in Esquinzo to me. It was identified by Prof. H. Freitag (Univ. Kassel) as *Maireana brevifolia*.

Table 1: *Maireana brevifolia* community (Maireanetum brevifoliae).

Number of the relevé	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Field number	87	83	84	85	82	975	976	977	978	979	980	981	982	983
Area [m ²]	12	18	8	15	70	4	3	6	10	5	36	50	75	140
Vegetation cover [%]	70	85	30	95	75	.	90	85	85	.	90	90	80	60
Number of species	11	9	7	7	6	5	3	5	5	5	3	2	3	4
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<u>Character species:</u>														
<i>Maireana brevifolia</i>	1.1	3.2	2.1	2.1	4.3	3.3	4.3	4.3	4.3	4.2	5.5	5.5	4.5	4.4
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<u>Other species of Pegano-Salsoletea:</u>														
<i>Launaea arborescens</i>	2.1	2.3	2.2	2.2	2.3	2.2	2.2
<i>Salsola vermiculata</i>	1.1	1.2	2.2	2.2	+j	.	.	.	.	.	.	.	.	.
<i>Atriplex semibaccata</i>	1.2	2.3	2.3	1.2	.	.	.	.	.	.	.	.	.	.
<i>Fagonia cretica</i>	.	.	1.2	1.2	.	.	.	+	+	1.2	.	.	.	.
<i>Chenoleoides tomentosa</i>	+	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Nicotiana glauca</i>	.	.	.	1.1	1.1	1.1	.	.	.
<i>Atriplex glauca</i> ssp. <i>ifniensis</i>	2.2
<i>Suaeda mollis</i>	3.4
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<u>Companion species:</u>														
<i>Patellifolia patellaris</i>	3.3	3.3	2.2	2.2	1.2	1.1	2.1	3.4	1.2	2.2	+	1.2	1.2	2°.2
<i>Malva parviflora</i>	+	1.1	1.1	.	.	1.2	1.2	.	.	.	.	.	.	.
<i>Mesembryanthemum nodiflorum</i>	.	+	.	.	1.2	.	.	.	.	.	.	.	.	.
<i>Mesembryanthemum crystallinum</i>	.	+	.	.	.	.	.	1.2	+	.	.	.	.	.
<i>Sisymbrium erysimoides</i>	+	.	.	.	.	.	.	+2	.	.	.	.	.	.
<i>Chenopodium murale</i>	.	.	.	.	.	.	.	.	.	r	.	.	.	.
<i>Rumex vesicarius</i>	2.2	.	.	.	.	.	.	.	.	.	.	.	.	1.2
<i>Hordeum murinum</i> ssp. <i>leporinum</i>	.	1.2	.	.	.	.	.	.	.	.	.	.	.	.
<i>Emex spinosa</i>	+	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Erodium moschatum</i>	+	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Launaea nudicaulis</i>	.	.	.	.	.	1.2	.	.	.	+	.	.	.	.

Maireana brevifolia (R. Br.) P. G. Wilson [= *Kochia brevifolia* R. Br.], the small-leaved bluebush, is widespread in Australia. It is used for rehabilitation of moderately saline sites. The species is naturalized in the Negev desert (H. Freitag, pers. comm.) and also in Chile (Marticorena 1997). Till 1999 it was unknown on the Canary Islands.

The first relevés (table 1, Nr. 1-5) were made 1999 from the interior of ruined buildings in Puerto del Rosario, where *Maireana brevifolia* fits in *Launaea arborescens-Salsola vermiculata* communities (Cl. Pegano-Salsoletea, All. Launaeo arborescentis-Schizogynion sericeae). In 2001 it forms already monodominant shrubby stands along walls and streets in the outskirts of the town (table 1, Nr. 6-14). Stands which are dominated by *Maireana brevifolia* show an obviously lower increase of the number of species with the area compared with stands, where *Maireana brevifolia* has only low cover. The same correlations were observed in the case of other monodominant species, e.g. *Bunias orientalis* (Brandes 1991).

The companion species belong to the class Stellarietea, mostly to the order Chenopodietalia muralis. These herbs are only weak competitors which are growing mostly at the borders of the stands. *Maireana brevifolia* forms distinctive stands which can be classified as *Maireanetum brevifoliae* ass. nov., which belongs to the alliance *Launaeo arborescentis-Schizogynion sericeae*. Relevé Nr. 8 is selected as *typus* of the association.

References:

Brandes, D. (1991): Untersuchungen zur Vergesellschaftung und Ökologie von *Bunias orientalis* L. im westlichen Mitteleuropa. – Braunschweiger Naturkundliche Schriften, 3 (4): 857-875.

Marticorena, C. (1997): La presencia de *Maireana brevifolia* (R. Br.) Paul G. Wilson en Chile continental. – *Revista Gayana Botánica*, 54 (2).

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Zeitschrift/Journal: [Brandes Dietmar__diverse botanische Arbeiten](#)

Jahr/Year: 2002

Band/Volume: [15_2002](#)

Autor(en)/Author(s): Brandes Dietmar

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