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Identity and relationships of *Sempervivum tectorum* (Crassulaceae) in the Rhine Gorge area

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Supplementary Table 1. Plant material used with sample abbreviation, species identity (“S.” = *Sempervivum*), geographical origin (degrees latitude/longitude), GenBank accession number, reason for exclusion from final sample (“Excluded”) and herbarium voucher number (in MJG). – DNA origin: * = garden voucher from Klein & Kadereit (2015) and DNA newly extracted; ** = -21° C stored DNA from Klein & Kadereit (2015); all other samples were collected in the field and DNA was newly extracted.

Sample abbreviation	Species identity	Latitude	Longitude	GenBank accession no.	Excluded	Herbarium voucher no.
Cal_1517	<i>S. calcareum</i> Jord.	44.168	5.181	SAMN08667994	–	MJG 025127
Cal_1518	<i>S. calcareum</i> Jord.	44.511	5.926	SAMN08667995	–	MJG 025159
Cal_1520	<i>S. calcareum</i> Jord.	44.695	5.960	SAMN08667996	–	MJG 025157
Cal_1522	<i>S. calcareum</i> Jord.	44.633	6.062	SAMN08667997	–	MJG 025168
Cal_1525	<i>S. calcareum</i> Jord.	43.787	6.842	SAMN08667998	–	MJG 025356
Cal_1526	<i>S. calcareum</i> Jord.	43.812	6.805	SAMN08667999	–	MJG 025354
Cal_1527	<i>S. calcareum</i> Jord.	44.048	6.590	SAMN08668000	–	MJG 025079
Cal_1529	<i>S. calcareum</i> Jord.	44.035	6.824	SAMN08668001	–	MJG 025068 / MJG 025146
Cal_1532	<i>S. calcareum</i> Jord.	44.018	7.008	SAMN08668002	–	MJG 025074
Cal_1533	<i>S. calcareum</i> Jord.	43.906	7.102	SAMN08668003	–	MJG 025355
Cal_1535	<i>S. calcareum</i> Jord.	43.906	7.102	SAMN08668004	–	MJG 025167
Cal_1537	<i>S. calcareum</i> Jord.	43.909	7.231	SAMN08668005	–	MJG 025158
Cal_1538	<i>S. calcareum</i> Jord.	43.913	7.237	SAMN08668006	–	MJG 025131
Cal_1539	<i>S. calcareum</i> Jord.	43.986	7.357	SAMN08668007	–	MJG 025357
383_marDin**	<i>S. marmoreum</i> Griseb.	44.040	16.401	SAMN08667986	–	JK 12884
691_min*	<i>S. minutum</i> (Kunze ex Willk.) Nyman ex Pau	37.037	-3.305	SAMN08667988	admixed	MJG 025358

Sample abbreviation	Species identity	Latitude	Longitude	GenBank accession no.	Excluded	Herbarium voucher no.
Ape_1549	<i>S. tectorum</i> L.	44.118	10.830	SAMN08667989	admixed	MJG 025346
Ape_1550	<i>S. tectorum</i> L.	44.128	10.824	SAMN08667990	admixed	MJG 025187
Ape_1551	<i>S. tectorum</i> L.	44.149	10.866	SAMN08667991	admixed	MJG 025188
Ape_1553	<i>S. tectorum</i> L.	44.561	9.488	SAMN08667992	admixed	MJG 025190
Ape_1554	<i>S. tectorum</i> L.	44.561	9.467	SAMN08667993	admixed	MJG 025126
C Alps_1570	<i>S. tectorum</i> L.	45.209	6.572	SAMN08668076	admixed	MJG 025124 / MJG 025128
C Alps_1571_d	<i>S. tectorum</i> L.	45.352	7.027	SAMN08668077	–	MJG 025189
C Alps_1571_h	<i>S. tectorum</i> L.	45.352	7.027	SAMN08668078	admixed	MJG 025183
C Alps_1572	<i>S. tectorum</i> L.	45.249	6.953	SAMN08668079	admixed	MJG 025184
C Alps_1575	<i>S. tectorum</i> L.	45.386	6.734	SAMN08668082	–	MJG 025076
C Alps_1580_T1	<i>S. tectorum</i> L.	45.896	7.621	SAMN08668008	admixed	MJG 025141
C Alps_1581	<i>S. tectorum</i> L.	45.936	7.229	SAMN08668009	–	MJG 025345
C Alps_1582	<i>S. tectorum</i> L.	46.038	7.954	SAMN08668010	–	MJG 025344
C Alps_1583	<i>S. tectorum</i> L.	46.382	8.144	SAMN08668011	–	MJG 025185
C Alps_1584	<i>S. tectorum</i> L.	46.485	8.762	SAMN08668012	–	MJG 025073 / MJG 025067
C Alps_1585	<i>S. tectorum</i> L.	46.916	8.872	SAMN08668013	–	MJG 025340
C Alps_1586_T1	<i>S. tectorum</i> L.	47.324	9.926	SAMN08668014	–	MJG 025348
C Alps_1587	<i>S. tectorum</i> L.	47.006	9.849	SAMN08668015	–	MJG 025343
C Alps_1588	<i>S. tectorum</i> L.	46.645	10.54	SAMN08668016	–	MJG 025349
C Alps_1590	<i>S. tectorum</i> L.	46.470	10.355	SAMN08668017	–	MJG 025138
C Alps_1596	<i>S. tectorum</i> L.	45.707	10.869	SAMN08668018	admixed	MJG 025186
C Alps_1598	<i>S. tectorum</i> L.	46.663	11.602	SAMN08668019	admixed	MJG 025070 / MJG 025145
Jura_1576	<i>S. tectorum</i> L.	46.286	5.962	SAMN08668020	low depth	MJG 025161
Jura_1577	<i>S. tectorum</i> L.	46.435	6.107	SAMN08668021	–	MJG 025170
SW Alps_1519	<i>S. tectorum</i> L.	44.695	5.960	SAMN08668046	admixed	MJG 025169

Sample abbreviation	Species identity	Latitude	Longitude	GenBank accession no.	Excluded	Herbarium voucher no.
SW Alps_1523	<i>S. tectorum</i> L.	44.577	6.280	SAMN08668047	admixed	MJG 025177
SW Alps_1524	<i>S. tectorum</i> L.	44.203	6.174	SAMN08668048	admixed	MJG 025139
SW Alps_1530	<i>S. tectorum</i> L.	44.101	6.993	SAMN08668049	–	MJG 025342
SW Alps_1531	<i>S. tectorum</i> L.	44.092	7.049	SAMN08668050	admixed	MJG 025130
SW Alps_1536	<i>S. tectorum</i> L.	43.968	7.199	SAMN08668051	–	MJG 025165
SW Alps_1540	<i>S. tectorum</i> L.	44.044	7.571	SAMN08668052	–	MJG 025132
SW Alps_1541	<i>S. tectorum</i> L.	44.087	7.655	SAMN08668053	–	MJG 025072 / MJG 025136
SW Alps_1542	<i>S. tectorum</i> L.	44.153	7.566	SAMN08668054	–	MJG 025077
SW Alps_1543	<i>S. tectorum</i> L.	44.153	7.566	SAMN08668055	–	MJG 025341
SW Alps_1544	<i>S. tectorum</i> L.	44.153	7.566	SAMN08668056	–	MJG 025178
SW Alps_1545	<i>S. tectorum</i> L.	44.153	7.566	SAMN08668057	–	MJG 025347
SW Alps_1546	<i>S. tectorum</i> L.	44.152	7.566	SAMN08668058	–	MJG 025140
SW Alps_1548	<i>S. tectorum</i> L.	44.204	7.498	SAMN08668059	–	MJG 025147
SW Alps_1555	<i>S. tectorum</i> L.	44.519	7.120	SAMN08668060	–	MJG 025153
SW Alps_1556	<i>S. tectorum</i> L.	44.531	7.116	SAMN08668061	–	MJG 025350
SW Alps_1557	<i>S. tectorum</i> L.	44.531	7.116	SAMN08668062	–	MJG 025075 / MJG 025152
SW Alps_1558	<i>S. tectorum</i> L.	44.531	7.116	SAMN08668063	–	MJG 025191
SW Alps_1559	<i>S. tectorum</i> L.	44.531	7.116	SAMN08668064	–	MJG 025123
SW Alps_1560	<i>S. tectorum</i> L.	44.629	7.054	SAMN08668065	–	MJG 025192
SW Alps_1561	<i>S. tectorum</i> L.	44.768	6.949	SAMN08668066	admixed	MJG 025162
SW Alps_1562	<i>S. tectorum</i> L.	44.530	6.718	SAMN08668067	admixed	MJG 025148
SW Alps_1563_g	<i>S. tectorum</i> L.	44.398	6.924	SAMN08668068	admixed	MJG 025164
SW Alps_1563_r	<i>S. tectorum</i> L.	44.398	6.924	SAMN08668069	admixed	MJG 025172
SW Alps_1564	<i>S. tectorum</i> L.	44.527	6.762	SAMN08668070	admixed	MJG 025173
SW Alps_1565	<i>S. tectorum</i> L.	44.518	6.747	SAMN08668071	admixed	MJG 025151

Sample abbreviation	Species identity	Latitude	Longitude	GenBank accession no.	Excluded	Herbarium voucher no.
SW Alps_1566	<i>S. tectorum</i> L.	44.768	6.529	SAMN08668072	admixed	MJG 025150
SW Alps_1567	<i>S. tectorum</i> L.	45.024	6.456	SAMN08668073	admixed	MJG 025149
SW Alps_1568	<i>S. tectorum</i> L.	45.046	6.327	SAMN08668074	admixed	MJG 025171
SW Alps_1569	<i>S. tectorum</i> L.	45.035	6.232	SAMN08668075	admixed	MJG 025193
SW Alps_1573_g	<i>S. tectorum</i> L.	44.946	6.811	SAMN08668080	admixed	MJG 025194
SW Alps_1573_r	<i>S. tectorum</i> L.	44.946	6.811	SAMN08668081	admixed	MJG 025163
SW Alps_1579_T1	<i>S. tectorum</i> L.	45.596	7.395	SAMN08668083	admixed	MJG 025360
SW Alps_1579_T2	<i>S. tectorum</i> L.	45.596	7.395	SAMN08668084	admixed	MJG 025137
SW Alps_JKB**	<i>S. tectorum</i> L.	44.153	7.566	SAMN08668085	–	JK 12890
MC_1501	<i>S. tectorum</i> L.	44.648	3.287	SAMN08668022	–	MJG 025160
MC_1502	<i>S. tectorum</i> L.	44.420	3.754	SAMN08668023	–	MJG 025154
MC_1503	<i>S. tectorum</i> L.	44.191	3.593	SAMN08668024	–	MJG 025129
MC_1504	<i>S. tectorum</i> L.	44.118	3.590	SAMN08668025	–	MJG 025179
MC_1505	<i>S. tectorum</i> L.	44.139	3.774	SAMN08668026	–	MJG 025180
MC_1506	<i>S. tectorum</i> L.	44.048	3.580	SAMN08668027	–	MJG 025134
MRT_1353	<i>S. tectorum</i> L.	50.517	6.998	SAMN08668028	–	MJG 025352
MRT_1354	<i>S. tectorum</i> L.	50.062	7.766	SAMN08668029	–	MJG 025181
MRT_1361	<i>S. tectorum</i> L.	50.228	7.413	SAMN08668030	–	MJG 025182
MRT_1391	<i>S. tectorum</i> L.	50.214	7.630	SAMN08668031	–	MJG 025175
MRT_1394	<i>S. tectorum</i> L.	50.184	7.301	SAMN08668032	–	MJG 025176
MRT_1396	<i>S. tectorum</i> L.	49.982	7.020	SAMN08668033	–	MJG 025353
MRT_1424	<i>S. tectorum</i> L.	50.103	7.139	SAMN08668034	–	MJG 025339
MRT_1425	<i>S. tectorum</i> L.	50.055	7.784	SAMN08668035	–	MJG 025078
MRT_JKB**	<i>S. tectorum</i> L.	50.140	7.177	SAMN08668036	low depth	MJG 025069
PY_1508	<i>S. tectorum</i> L.	42.515	2.210	SAMN08668037	–	MJG 025351

Sample abbreviation	Species identity	Latitude	Longitude	GenBank accession no.	Excluded	Herbarium voucher no.
PY_1509	<i>S. tectorum</i> L.	42.529	2.125	SAMN08668038	–	MJG 025071 / MJG 025156
PY_1510	<i>S. tectorum</i> L.	42.405	1.990	SAMN08668039	–	MJG 025155
PY_1511	<i>S. tectorum</i> L.	42.580	1.811	SAMN08668040	–	MJG 025174
PY_1512	<i>S. tectorum</i> L.	42.659	1.840	SAMN08668041	–	MJG 025125 / MJG 025144
PY_1513	<i>S. tectorum</i> L.	42.764	0.496	SAMN08668042	–	MJG 025133
PY_1514	<i>S. tectorum</i> L.	42.769	0.015	SAMN08668043	–	MJG 025143
PY_1515	<i>S. tectorum</i> L.	42.908	-0.033	SAMN08668044	–	MJG 025142
PY_1516	<i>S. tectorum</i> L.	42.891	-0.538	SAMN08668045	–	MJG 025166

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