

Table 13.2 Litter decomposition rate constants (k) derived from fitting the single exponential Olson’s (1963) model (mass loss = e^{-kt} ; with t = days of incubation) to the data from the transect and the transplant experiment, using SAS (version 6). Additionally first and second year decomposition rate constants were calculated individually. A two-name nomenclature is used to describe litter types, with the names ‘Col’, ‘AuF’, ‘Sch’ and ‘Sor’ representing Collelongo (Italy), Aubure (France), Schacht (Germany) and Sorø (Denmark), respectively. The first name of the nomenclature gives the source of the litter, whilst the second name identifies the site where the litter was decomposed; hence, for example, ‘Col-AuF’ denotes litter grown at Collelongo and decomposed at Aubure.

| <i>Litter type</i> | <i>Daily K values</i> | <i>Yearly K values (1st yr.)</i> | <i>Yearly K values (2nd yr.)</i> |
|---------------------------|-----------------------|---|---|
| AuF - Col | 0.00022 | 0.086 | 0.053 |
| Sch - Col | 0.00028 | 0.106 | 0.097 |
| Sor - Col | 0.00036 | 0.132 | 0.106 |
| Col - Col | 0.00043 | 0.217 | 0.046 |
| Col - Sch | 0.00062 | 0.247 | 0.228 |
| Col - AuF | 0.00066 | 0.308 | 0.148 |
| Col - Sor | 0.00090 | 0.233 | 0.663 |