

**Table 10.2.** Annual totals of soil respiration [ $\text{g C m}^{-2} \text{ yr}^{-1}$ ] for three sites. The budgets were calculated by exponential regression with soil temperature (WAL) and regressions with both soil temperature and soil water content (COL and MDM). At COL, two regressions were applied, a sigmoid function with temperature during the dormant season and the model from Epron (Ts and SWC) for the growing season. Total ecosystem respiration values (TER) measured by eddy covariance (EC) above the canopy and of soil carbon mineralisation (average by the  $^{14}\text{C}$  technique, Harrison et al., Ch. 11, this volume, and the incubation method, Persson et al., Ch. 12, this volume) are also presented. The values of TER are for the same period of total Rs for COL, for 1997 for WAL.

Site	Total Rs [ $\text{g C m}^{-2} \text{ yr}^{-1}$ ]	Means Ts [ $^{\circ}\text{C}$ ]	Method to calculate the annual budget	TER, EC [ $\text{g C m}^{-2} \text{ yr}^{-1}$ ]	Year	C mineralisation [ $\text{g C m}^{-2} \text{ yr}^{-1}$ ]
Waldstein, spruce	711.1	6.5	T function (exponen.)	1300	1998	262
Collelongo, beech	879.2	2.5	Mixed (T, T+SWC)	640	96-97	205
Monte di Mezzo, spruce	803.2	5.6	Hanson model	n.a.	1997	406