Appendix I. Major disturbances and associated characteristics for each LTER site based on a survey of principal investigators.

Site code and ecosystem type	Major disturbances (and recent trends)*	Drivers of change	Mechanism by which disturbance impacts ecosystems	Consequences	Return interval (yr)	Median size (km2)	Website
H.J. Andrews Experimental Forest[1] (coniferous forest)	Fire (↓)	Management policy/ action (fire use, suppression)	thermal stress	mortality	50-500	.01 - 10^4	http://www.fsl.orst.edu/
	Logging (↓)	Federal land policy	Tree bole removal	mortality	100 (formerly)	2	
Arctic (tundra)	Frost heave (↑??)	Climate warming	Physical stress	mortality	1	.000001	http://ecosystems.mbl.edu/ARC/
	Fire?? (↑)	Climate warming	Combustion	mortality	300	1	
Baltimore Ecosystem Study (city)	Land conversion (↑ or ↓?)	Globalization; Human population redistribution	Altered social capital	Land conversion	50	.001	http://www.beslter.org/
	Sea level rise (↑)	Climate warming	Threatened properties		decades	global	
Bonanza Creek (boreal forest)	Fire (↑)	Climate warming	Combustion	mortality	80	100	http://www.lter.uaf.edu/
	Insect outbreak (↑)	Climate warming	Consumption	mortality	4	100	
Central Arizona-Phoenix (city)							http://caplter.edu
California Current Ecosystem (coastal)	ENSO (unclear trend)	proximal causes are changes in Walker	increased water column stratification, reduced nutrient supply	Faunal/floral displacements	2-7 y	Pacific basin	http://ccelter.sio.ucsd.edu/

Harvard Forest (eastern deciduous forest)	Land clearing (↓)	Human population redistribution	Landscape change	species change	100	10,000	http://harvardforest.fas.harvard.edu/
	Logging (no Δ)		Tree bole removal	Mortality	10	.01	
Jornada Basin[2] (desert grassland)	Drought (↑)	Climate change	Water, heat stress	State change	30-50	100s	http://jornada-www.nmsu.edu
	Grazing (↓)	management	Grass consumption	State change	1	100s	
Kellogg Biological Station (agricultural)	Drought (↑)	Climate change	Water, heat stress	↓ NPP	3-10	10s	http://lter.kbs.msu.edu/
	Exotic pest (invasive species) (↑)	Globalization	defoliation	↓ NPP	10-20	100s	
Konza Prairie (mesic grassland)	Fire (↓)	Human population redistribution, fire suppression	combustion	Woody plant expansion, land cover change	5	.1-1.0	http://www.konza.ksu.edu/
	Grazing (↑)	Human population redistribution	↑ consumption	↓ landscape heterogeneity	1	10	
Luquillo (tropical forest)	Hurricanes (↑)	Climate change	defoliation	Biomass transfer from canopy to soil surface	20	100??	http://luq.lternet.edu/
	Logging (↓)	Globalization; human pop. redistrib.	Tree removal	Species conservation	50??	1	
McMurdo Dry Valleys[3] (Antarctica)	Summer air temperatures (↓)	Ozone hole		microbial abundance (↓)	??	$>10^4$ km^2	http://www.mcmlter.org/
	Floods	Air temperatures melting ice	Soil wetting, sediment to lakes		10		
Moorea	Ocean acidification	Atmospheric	(↑) mortality		100-	Global	http://mcr.lternet.edu/

Santa Barbara Coastal (terrestrial)	Fire (↑)	Human pop. redistrib., climate warming	Combustion	mortality	15	1	
	Grazing (↓)	Globalization	↓ consumption		50	100	
Sevilleta[7] (iarid grassland)	Drought (↑)	Climate change	Water, heat stress	Mortality	2-3	1000	http://sev.lternet.edu/
	Fire (↑)	Human population redistribution	Combustion	mortality	8-10	.1	
Shortgrass Steppe[8] (semiarid grassland)	Plowing (↓)	Human policies	altered landscape composition/connectivity	Species loss	>50y	.2	http://sgs.cnr.colostate.edu/
	Prairie dogs (↑)	Introduction of exotic disease	Burrowing, plant consumption	Altered species composition (flora/fauna), soil redistribution, change in nutrient cycling	2-20y	1	
Virginia Coast Reserve (coastal)							http://www.vcrlter.virginia.edu/

*Major disturbances are defined as those having the greatest importance in recent decades in shaping the structure and long-term (decades to centuries) dynamics of a site. These disturbances could be small in extent and frequently occurring or large in extent or infrequent. The trend (positive, negative, no change) over the past decades is also shown. Both natural-occurring and anthropogenic disturbance can be listed.

[1] Morrison, Peter H.; Swanson, Frederick J. 1990. Fire history and pattern in a Cascade Range landscape. Gen Tech. Rep. PNW-GTR-254. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 77 p.; Garman, Steven L.; Swanson, Frederick J.; Spies, Thomas A. 1999. Past,