

何春梅, 李雨姗, 尹秋龙, 贾仕宏, 郝占庆 (2023). 秦岭皇冠暖温性落叶阔叶林优势树种的径级结构和数量特征. 植物生态学报, 47, 1658-1667. DOI: 10.17521/cjpe.2023.0132

He CM, Li YS, Yin QL, Jia SH, Hao ZQ (2023). Diameter structure and quantitative characteristics of dominant tree species in warm temperate deciduous broadleaf forest plot in Huangguan of Qinling Mountains, China. *Chinese Journal of Plant Ecology*, 47, 1658-1667. DOI: 10.17521/cjpe.2023.0132

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附录III 秦岭皇冠样地华山松种群静态生命表

Supplement III Static life table of *Pinus armandii* population in the plot at Huangguan of the Qinling Mountain

龄级 Age class	径级 DBH (cm)	N_x	a_x	l_x	d_x	q_x	L_x	T_x	e_x	$\ln l_x$	K_x	S_x
I	[1, 5)	1 553	1 553	1 000	513	0.51	743	1 352	1.82	6.91	0.72	0.90
II	[5, 10)	756	756	487	296	0.61	339	608	1.80	6.19	0.94	0.85
III	[10, 15)	296	296	191	120	0.63	130	270	2.07	5.25	1.00	0.81
IV	[15, 20)	109	109	70	28	0.39	56	139	2.47	4.25	0.50	0.88
V	[20, 25)	66	66	42	21	0.48	32	83	2.58	3.75	0.66	0.82
VI	[25, 30)	34	34	22	12	0.56	16	51	3.22	3.09	0.82	0.73
VII	[30, 35)	16	15	10	1	0.07	9	35	3.76	2.27	0.07	0.97
VIII	[35, 40)	12	14	9	1	0.07	9	26	2.96	2.20	0.07	0.97
IX	[40, 45)	14	13	8	3	0.38	7	17	2.52	2.12	0.49	0.77
X	[45, 50)	10	8	5	1	0.25	5	10	2.29	1.64	0.29	0.82
XI	[50, 55)	2	6	4	1	0.33	3	6	1.80	1.35	0.41	0.70
XII	[55, 60)	4	4	3	1	0.50	2	3	1.33	0.95	0.69	0.27
XIII	[60, 65)	2	2	1	1	1.00	1	1	1.00	0.25	—	—
XIV	[65, 70)	2	0	0	—	—	0	—	—	—	—	—

a_x , 匀滑后 x 龄级内的个体数, a_0 为 a_x 的初始值; d_x , 从 x 龄级到 $x+1$ 龄级的死亡个体数, $d_x = l_x - l_{x+1}$; e_x , 平均生命期望值, $e_x = T_x/L_x$; K_x , 种群消失率, $K_x = \ln l_x - \ln l_{x+1}$; l_x , x 龄级存活个体数的标准化, $l_x = a_x/a_0 \times 1000$; L_x , 从 x 龄级到 $x+1$ 龄级的平均存活个体数, $L_x = (l_x + l_{x+1})/2$; N_x , 在 x 龄级内实际存活的个体数; q_x , 从 x 龄级到 $x+1$ 龄级的个体死亡率, $q_x = d_x/l_x \times 100\%$; S_x , 种群存活率, $S_x = l_{x+1}/l_x$; T_x , 大于等于 x 龄级的存活个体数, $T_x = \sum L_x$.

a_x , the correction value of individuals in x age class, a_0 is the initial value of a_x ; d_x , the number of dead individuals from x to $x+1$ age class, $d_x = l_x - l_{x+1}$; e_x , the average life expectancy, $e_x = T_x/L_x$; K_x , the vanish rate, $K_x = \ln l_x - \ln l_{x+1}$; l_x , the logarithmic standard surviving number in x age class, $l_x = a_x/a_0 \times 1000$; L_x , the average number of surviving individuals from x to $x+1$ age class, $L_x = (l_x + l_{x+1})/2$; N_x , the actual survival number in x age class; q_x , the mortality rate from x to $x+1$ age class, $q_x = d_x/l_x \times 100\%$; S_x , the survival rate, $S_x = l_{x+1}/l_x$; T_x , the total survival number of individuals over x age class, $T_x = \sum L_x$.