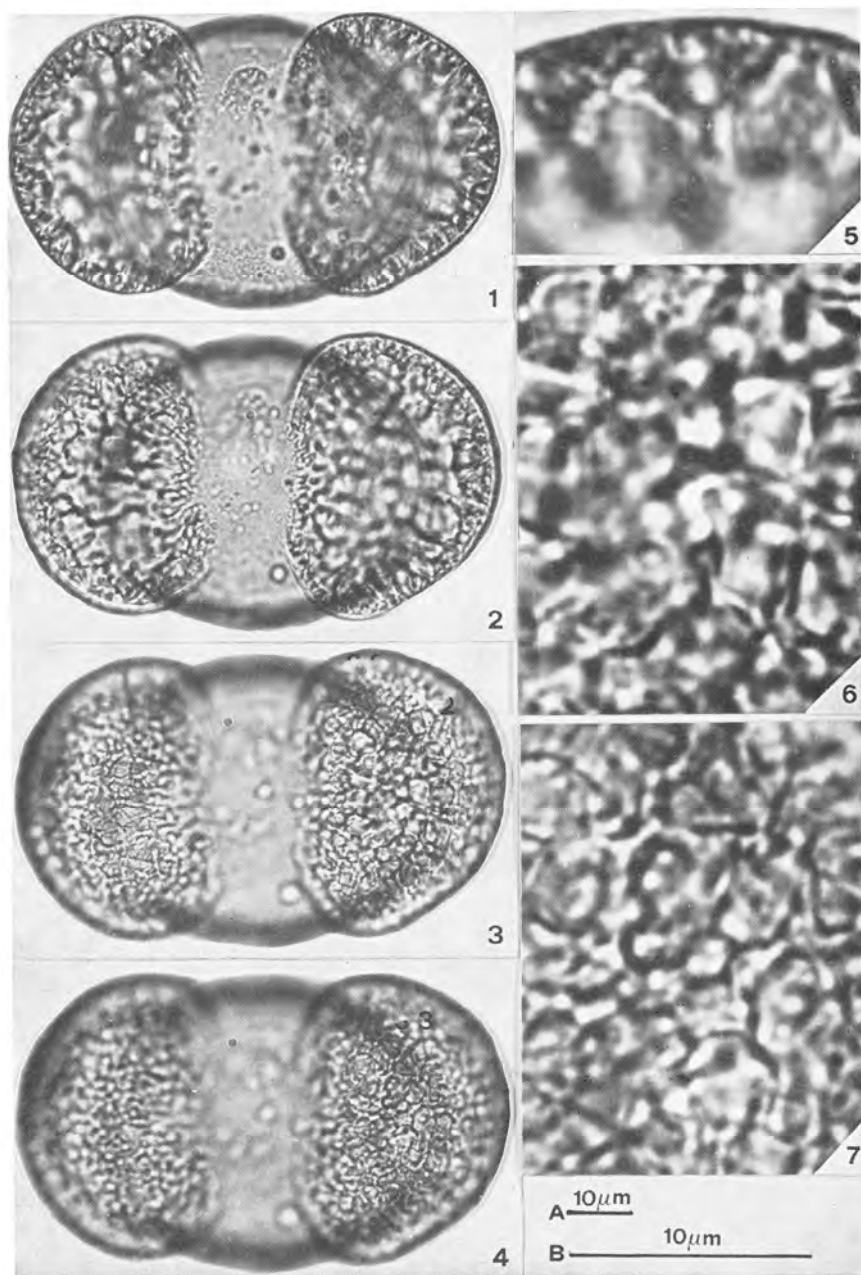


## P I N A C E A E

*Pinus sylvestris* L. subsp. *sylvestris*

## Iconografia

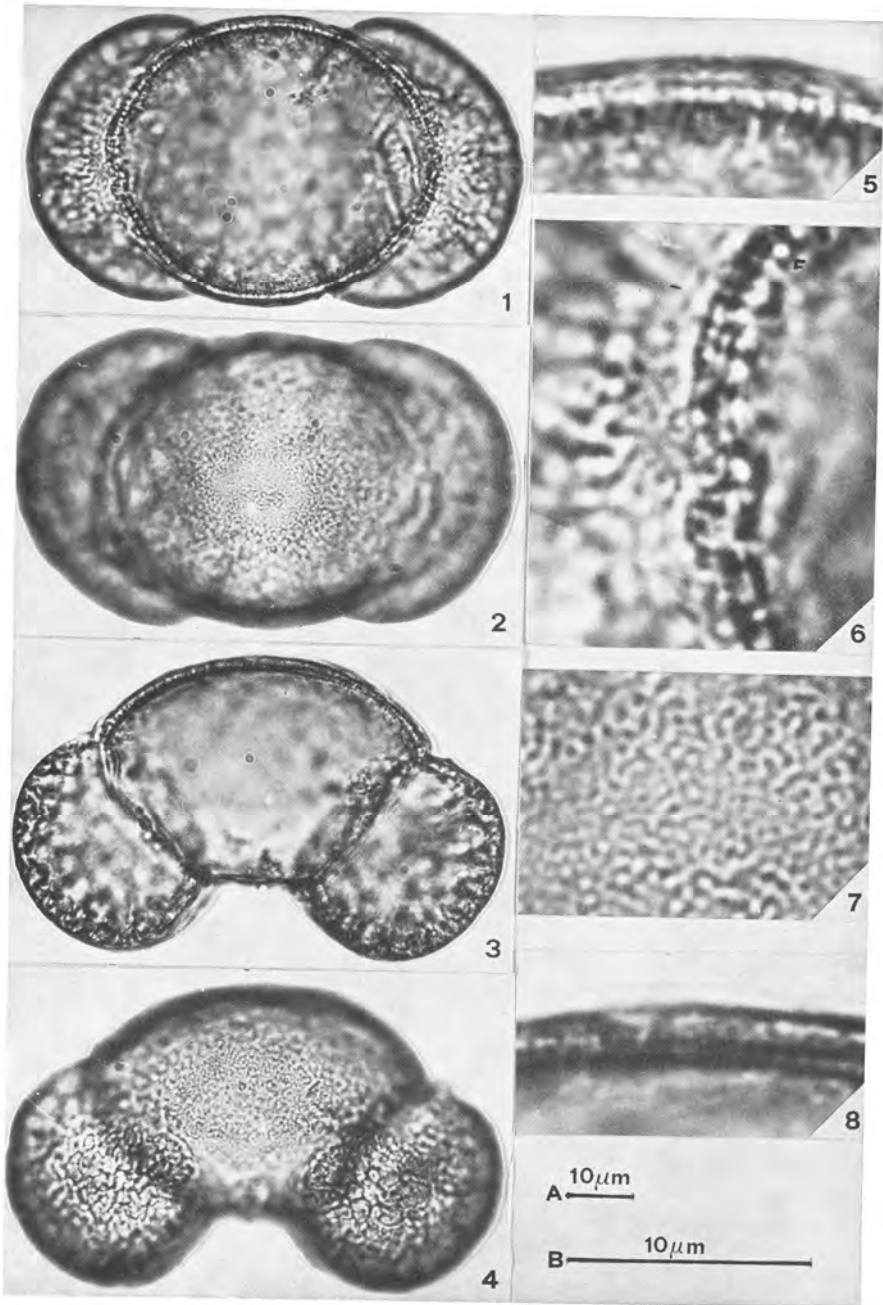
Scala A: Figg. 1-4 — Scala B: Figg. 5-7

Figg. 1-4: visione distale a fuochi successivi.

Figg. 5-7: particolari - altezza del sistema alveolare (Fig. 5); alveoli grandi (Fig. 6) e medi (Fig. 7).

ACCORSI C.A., BANDINI MAZZANTI M. e FORLANI L.

## PINACEAE

*Pinus sylvestris* L. subsp. *sylvestris*

## Iconografia

Scala A: Figg. 1-4 — Scala B: Figg. 5-8

Figg. 1-4: visione prossimale (Figg. 1,2); visione equatoriale (Figg. 3,4).

Figg. 5-8: particolari - esina equatoriale (Figg. 5,6); esina al polo prossimale (Fig. 7); esina prossimale (Fig. 8).

ACCORSI C.A., BANDINI MAZZANTI M. e FORLANI L.

FLORA PALINOLOGICA ITALIANA		Pinaceae	S72
Pinus sylvestris L. ssp. sylvestris			
Erbario Palinologico Istituto Botanico Bologna n.53			
Val Venosta n. 750 16.05.78			
RAGGRUPPAMENTO	: monadi		
SIMMETRIA	: bilaterali		
POLARITA'	: eteropolari		
PERIMETRO - visione polare	: figura complessa formata dalla intersezione di un'ellisse con due segmenti circolari od ellittici.		
PERIMETRO - visione equatoriale	: figura complessa formata da un trapezoido sui cui lati obliqui sono inseriti due segmenti circolari od ellittici.		
FORMA	: vescicolati-bisaccati pseudo-oblati (100%) etero-E (100%)		
Pt/E1t	: MEDIA = .62( .72- .52) s = .05 MODA = .63 MEDIANA = .63		
E1t/E2t	: MEDIA = 1.66( 1.85- 1.48) s = .09 MODA = 1.60 MEDIANA = 1.64		
APERTURE	: monotremi-analeptici		NPC = 131
APERTURE - zona germinale	: di forma rettangolare, +/- psilata, sita al polo distale, tra le sacche.		
Pz9	: MEDIA = 11.74( 17.00- 6.00) s = 2.19 MODA =12.00 MEDIANA =12.00		
E1z9	: MEDIA = 11.21( 16.00- 6.00) s = 2.42 MODA =10.00 MEDIANA =11.00		
E2z9	: MEDIA = 25.26( 33.00-15.00) s = 3.37 MODA =27.00 MEDIANA =26.00		
DIMENSIONI:	: su 50 granuli		
Pt	: MEDIA = 46.58( 51.00-40.00) s = 2.55 MODA =47.00 MEDIANA =47.00		
E1t	: MEDIA = 74.85( 90.00-60.00) s = 5.66 MODA =73.00 MEDIANA =74.00		
E2t	: MEDIA = 45.27( 53.00-37.00) s = 3.42 MODA =47.00 MEDIANA =45.00		
GRANULI ANOMALI	: su 1000 granuli		
	tsugoidi ( .10%)		
	subsaccati ( .30%)		
	eterosaccati ( .20%)		
	trisaccati ( .10%)		
	ipersaccati ( .20%)		
RAPPORTI SUL GRANULO INTERO			
Pc/Pt	: MEDIA = .75( .84- .62) s = .05 MODA = .78 MEDIANA = .76		
E1c/E1t	: MEDIA = .66( .78- .59) s = .04 MODA = .64 MEDIANA = .65		
E2c/E2t	: MEDIA = .92( 1.00- .79) s = .06 MODA = 1.00 MEDIANA = .92		

## - C O R P O -

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Pinus sylvestris L. ssp. sylvestris

PERIMETRO - visione polare	:	<ul style="list-style-type: none"> <li>◻ circolari ( 6%)</li> <li>◻ subcircolari (32%)</li> <li>◻ ovali (58%)</li> <li>◻ ellittici ( 4%)</li> </ul>
PERIMETRO - visione equatoriale	:	◻ trapezoidali
FORMA	:	<ul style="list-style-type: none"> <li>◻ pseudo-obliatici (90%)</li> <li>◻ pseudo-subobliatici (10%)</li> <li>◻ subequi-E (38%)</li> <li>◻ subetero-E (58%)</li> <li>◻ etero-E ( 4%)</li> </ul>
Pc/E1c	:	MEDIA = .71( .84- .62) s = .04 MODA = .72 MEDIANA = .72
Pc/E2c	:	MEDIA = .84( 1.01- .64) s = .06 MODA = .84 MEDIANA = .85
E1c/E2c	:	MEDIA = 1.18( 1.41- 1.04) s = .08 MODA = 1.13 MEDIANA = 1.18
ESINA	:	◻ esina prossimale tectata; alveolare, esina distale psilata; esina equatoriale a contorno +/- regolare.
es.pross.	:	MEDIA = 2.58( 3.50- 2.00) s = .43 MODA = 3.00 MEDIANA = 2.50
cm	:	MEDIA = 3.27( 4.50- 2.00) s = .72 MODA = 3.00 MEDIANA = 3.20
es.dist.	:	MEDIA = 1.02( 1.50- .80) s = .12 MODA = 1.00 MEDIANA = 1.00
es.eq.min.	:	MEDIA = 1.78( 2.50- 1.20) s = .24 MODA = 1.80 MEDIANA = 1.80
es.eq.med.	:	MEDIA = 2.21( 3.00- 1.80) s = .30 MODA = 2.00 MEDIANA = 2.00
es.eq.max.	:	MEDIA = 3.82( 6.00- 2.50) s = .87 MODA = 4.00 MEDIANA = 4.00
ATTACCO SACCA	:	
E2c/As	:	MEDIA = 1.67( 2.00- 1.43) s = .13 MODA = 1.63 MEDIANA = 1.68
DIMENSIONI	:	
Pc	:	MEDIA = 34.99( 41.00-26.00) s = 2.64 MODA =36.00 MEDIANA =35.50
E1c	:	MEDIA = 49.15( 57.00-42.00) s = 3.43 MODA =48.00 MEDIANA =49.00
E2c	:	MEDIA = 41.62( 49.00-34.00) s = 2.71 MODA =44.00 MEDIANA =42.00

## - S A C C H E -

S72

Pinus sylvestris L. ssp. sylvestris

PERIMETRO - visione polare : segmenti circolari od ellittici > di  
1/2 cerchio od ellisse.

PERIMETRO - visione equatoriale : segmenti subcircolari od ellittici.

FORMA : oblati sferoidi ( 3% )  
prolati sferoidi (71% )  
subprolatoidi (25% )  
subetero-E (26% )  
etero-E (74% )

d2s/E1s : MEDIA = 1.12( 1.34- 1.00) s = .07 MODA = 1.09 MEDIANA = 1.10  
d1s/d2s : MEDIA = .79( .97- .64) s = .07 MODA = .76 MEDIANA = .80  
E1s/E2s : MEDIA = .73( .91- .58) s = .05 MODA = .70 MEDIANA = .72

ESINA : alveolare, alveoli a contorno da conti-  
nuo a discontinuo.  
alveoli piccoli, contorno da circolare a  
poligonale.  
alveoli medi, contorno poligonale.  
alveoli grandi, contorno poligonale.

ha : MEDIA = 5.29( 6.50- 4.00) s = .62 MODA = 5.00 MEDIANA = 5.00  
ha/d1s : MEDIA = .19( .26- .14) s = .03 MODA = .18 MEDIANA = .19  
a.parv.dM : MEDIA = 1.89( 4.00- .80) s = .96 MODA = 2.00 MEDIANA = 2.00  
a.med.dM : MEDIA = 5.17( 12.00- 2.50) s = 1.90 MODA = 4.00 MEDIANA = 5.00  
a.magn.dM : MEDIA = 8.72( 21.00- 3.00) s = 3.98 MODA = 6.00 MEDIANA = 8.00

SPORGENZE SACCHE :

SpE1s : MEDIA = 12.85( 20.00- 7.00) s = 3.16 MODA =13.00 MEDIANA =13.00  
Spd1s : MEDIA = 20.65( 27.00-15.00) s = 2.32 MODA =21.00 MEDIANA =21.00  
SpE1s/E1s : MEDIA = .40( .60- .23) s = .09 MODA = .39 MEDIANA = .40  
Spd1s/d1s : MEDIA = .74( .87- .59) s = .06 MODA = .75 MEDIANA = .75

ATTACCO SACCA :

As : MEDIA = 25.07( 29.00-17.00) s = 2.48 MODA =27.00 MEDIANA =25.00  
E2s/As : MEDIA = 1.76( 2.25- 1.37) s = .17 MODA = 1.73 MEDIANA = 1.73

DIMENSIONI :

E1s : MEDIA = 31.82( 39.00-24.00) s = 3.13 MODA =31.00 MEDIANA =32.00  
E2s : MEDIA = 43.93( 53.00-30.50) s = 4.49 MODA =45.00 MEDIANA =44.50  
d1s : MEDIA = 29.03( 35.00-22.00) s = 3.03 MODA =28.00 MEDIANA =28.00  
d2s : MEDIA = 35.78( 45.00-26.00) s = 3.84 MODA =37.00 MEDIANA =36.00

## I.E.S.

E1-equisaccati ( 6% ), E1-magnisaccati (94% )  
E2-parvisaccati ( 2% ), E2-equisaccati (70% ), E2-magnisaccati (28% )  
E-parvisaccati ( 2% ), E-equisaccati ( 6% ), E-magnisaccati (92% )

I.E.S.-E1 : MEDIA = 1.30( 1.50- 1.00) s = .11 MODA = 1.35 MEDIANA = 1.31  
I.E.S.-E2 : MEDIA = 1.06( 1.24- .81) s = .08 MODA = 1.06 MEDIANA = 1.06  
I.E.S.-E : MEDIA = 1.38( 1.79- .81) s = .20 MODA = 1.40 MEDIANA = 1.40

I.E.S-E1=2E1s/E1c I.E.S.-E2=E2s/E2c I.E.S.-E=2(E1s+E2s)/E1c+E2c

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D. BERTOLANI MARCHETTI, W. DE LEONARDIS, L. FORLANI, V. PICCIONE

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**Flora Palinologica Italiana.**  
**Schede elaborate tramite Computer**

