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Phyllactinia

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(Erysiphaceae)

Morphology of penicillate cells in the genus *Phyllactinia* (Erysiphaceae)
based on Iranian specimens

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Phyllactinia

P. guttata

"... Erysiphaceae

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Phyllactinia Erysiphaceae :

Ascomycota) Erysiphaceae *Phyllactinia*
(Braun 1987) (Erysiphales

Erysiphaceae

(Yu & Han 1978)

(Homma 1937)

(Shin 2000)

(Yu *et al.* 1979)

(Yu & Lai 1979)

(Nomura 1997)

()

(Shin & Lee 2002)

Phyllactinia

(Shin & Lee 2002)

Phyllactinia

("IRAN")

(Charmichael 1955)

BH₂

Phyllactinia

("IRAN")

***Phyllactinia babayanii* Simonjan.**

(*Prunus dulcis* (Mill.) D.A. Webb.)

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(IRAN 3364 F)

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(IRAN 3365 F)

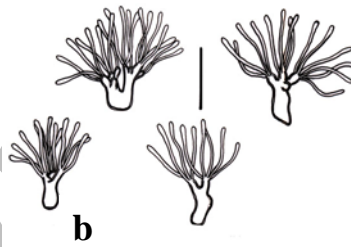
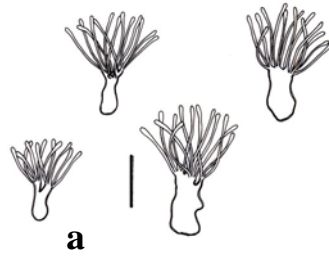
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***Phyllactinia fraxini* (DC.) Fuss**

Fraxinus excelsior L.

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(IRAN 3358 F)



Phyllactinia fraxini (b) *Phyllactinia babayanii* (a)

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Fig. 1. Penicillate cells of (a) *Phyllactinia babayanii* and (b) *Ph. fraxini* (Scale=50µm).

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	()		
<i>Phyllactinia guttata</i> (Wallr: Fr.) Lév.			
()	/ /	<i>Alnus glutinosa</i> (L.) Gaertn.	
()	()	/ /	
/ /	()	/ /	
/ /	()	()	
(IRAN 3367 F)	/ /	()	
()	/ /	<i>Carpinus betulus</i> L.	
(IRAN 10995 F)	/ /	/ /	
()	/ /	()	
/ /	()	<i>Cornus sanguinea</i> L.	
		(IRAN 10497 F)	
()	/ /	<i>Cornus</i> sp.	
()	/ /	<i>Corylus avellana</i> L.	
()	/ /	/ /	
/ ()	()	/ /	
/ /	()	()	
()	/ /	()	
(IRAN 3381 F)	/ /	<i>Cydonia oblonga</i> Mill.	
/ /	/ /	<i>Paliurus spina-christi</i> Mill.	
()	/ /	()	
()	()	/ /	
(IRAN 9152 F)	/ /	()	
()	/ /	<i>Parietaria officinalis</i> L.	
(IRAN 10599 F)	/ /	<i>Prunus armeniaca</i> L.	

() // () *Pyrus communis* L.
// *Pyrus salicifolia* Pall.
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Alnus glutinosa

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(2002)

(MUMH 157 MUMH 3024) *Alnus japonica* Siebold & Zucc. *P. alni*

Alnus japonica

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A. glutinosa

Carpinus betulus

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() () × /

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Cornus sanguinea

() × () ()

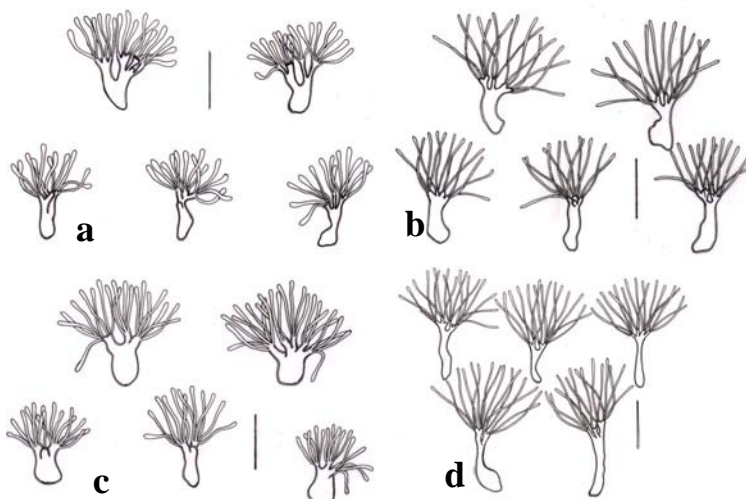
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Alnus glutinosa (a) *Phyllactinia guttata*
) *Cornus* sp. (d) *Cornus sanguinea* (c) *Carpinus betulus* (b)

Fig. 2. Penicillate cells in *Phyllactinia guttata* from: (a) *Alnus glutinosa*, (b) *Carpinus betulus*, (c) *Cornus sanguinea*, (d) *Cornus* sp. (Scale=50 μm).

Cornus officinalis Sieb. & Zucc. ()

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C. sanguinea

P. corni Shin & La

Cornus officinalis

Cornus sp.

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Cornus sanguinea

Cornus mas L. (Bacigalova et al. 2005)

Corylus avellana

() × () ()
() () × ()
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Cydonia oblonga

() () × () ()
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Paliurus spina-christi

() × () ()
/ () ()
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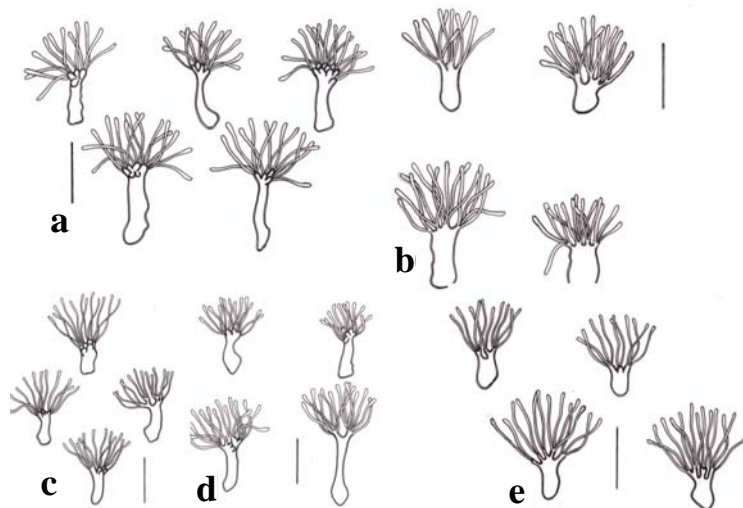
Parietaria officinalis

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Prunus armeniaca

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/ / () ()
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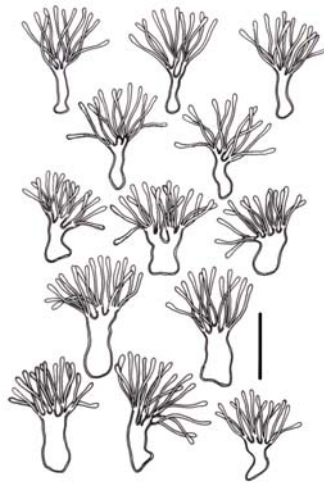




Corylus avellana (a) *Phyllactinia guttata*
Parietaria officinalis (d) *Paliurus spina-christi* (c) *Cydonia oblonga* (b)
 () *Prunus armeniaca* (e)

Fig. 3. Penicillate cells of *Phyllactinia guttata* from (a) *Corylus avellana*, (b) *Cydonia oblonga*, (c) *Paliurus spina-christi*, (d) *Parietaria officinalis*, (e) *Prunus armeniaca* (Scale=50 μm).

		<i>Pyrus</i> spp.	
	()	() × ()	()
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		()	
	()		
	<i>Pyrus</i>		<i>P. mali</i>
()			



Pyrus communis

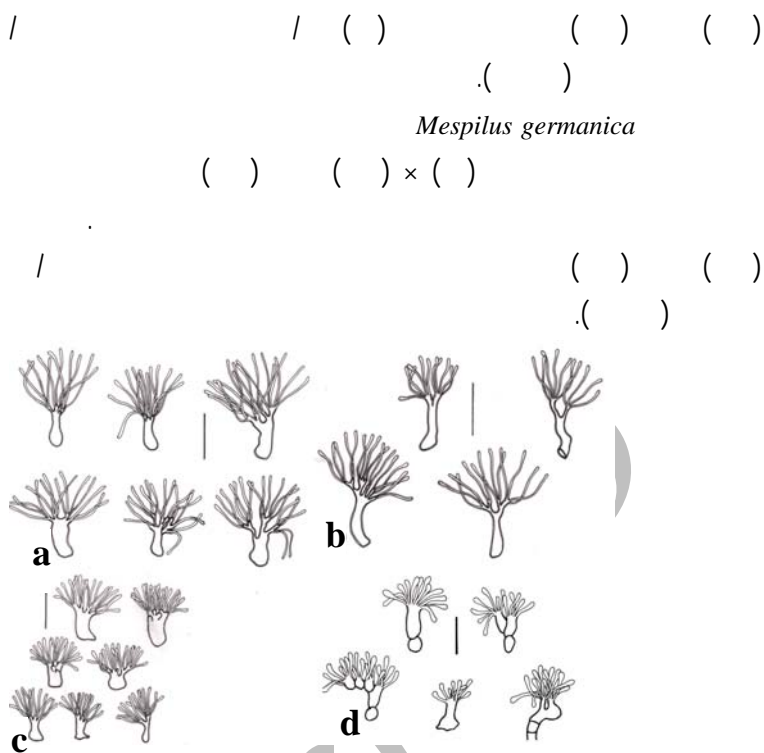
Phyllactinia guttata

() *P. salicifolia*

Fig. 4. Penicillate cells of *Phyllactinia guttata* on *Pyrus communis* and *P. salicifolia* (Scale=50 μ m).

***Phyllactinia mali* (Duby) U. Braun.**

	//		<i>Crataegus</i> sp.
//	()	//	()
()	// ()	()	
	()	//	
	()	()	//
//	()		<i>C. meyeri</i> Pojark.
()		()	()
)	<i>C. monogyna</i> Jacq.
			(IRAN 3380 F)
//			<i>Mespilus germanica</i> L.
()	//	()	
()	// ()		
			<i>Crataegus</i> spp.
	()	() × ()	()
			()



Crataegus spp. *Phyllactinia mali* (a)
) *Ph. pistaciae* (d) *Ph. moricola* (c) *Mespilus germanica* *Ph. mali* (b)
 .(

Fig. 5. Penicillate cells in: (a) *Phyllactinia mali* from *Crataegus* spp., (b) *Ph. mali* from *Mespilus germanica*, (c) *Ph. moricola*, (d) *Ph. pistaciae* (Scale=50 μ m).

***Phyllactinia moricola* (P. Henn) Homma**

() // *Morus* sp.
 () //
 // () //
 .(IRAN 11230 F)

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 .() / /

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***Phyllactinia pistaciae* H.D. Shin & Y.J. Choi**

// () *Pistacia vera* L.
(IRAN 3376 F) // (IRAN 3375 F)
// (IRAN 3372 F) //
/ () (IRAN 3373 F)
(IRAN 3374 F)

() × ()

(Shin & Choi 2003)

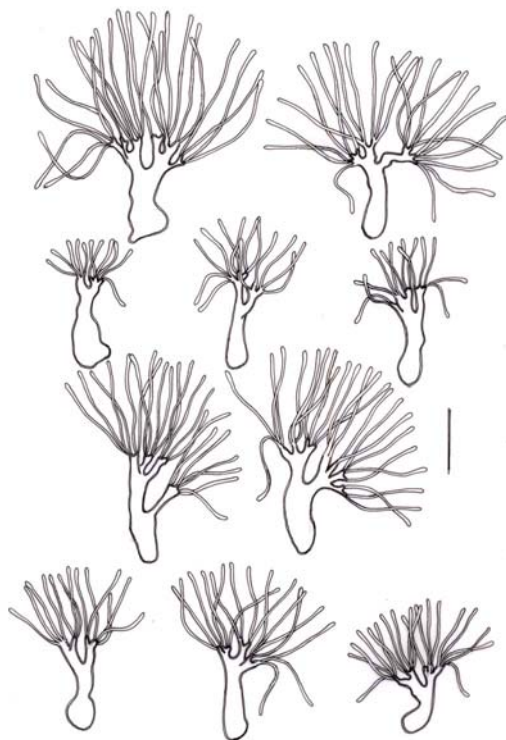
***Phyllactinia roboris* (Gachet.) Blumer**

Quercus macranthera Fisch. & Mey. ex Hohen.

(IRAN 11647 F) //

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/ () () ()
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() *Phyllactinia roboris*

Fig. 6. Penicillate cells of *Phyllactinia roboris* (Scale=50 μm).

***Phyllactinia* spp.**

Lonicera iberica M.B.

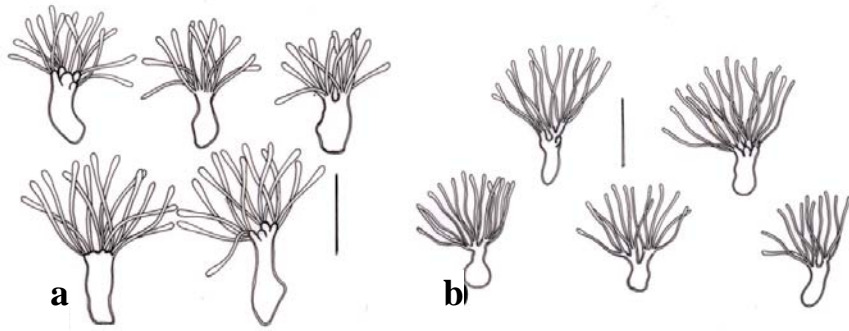
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Lonicera iberica (a) *Phyllactinia* spp.
() *Salix aegyptiaca* (b)

Fig. 7. Penicillate cells of *Phyllactinia* spp. from (a) *Lonicera iberica*, (b) *Salix aegyptiaca* (Scale=50 μm).

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Salix aegyptiaca L.

(IRAN 11610 F)

() () × () ()
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S. aegyptiaca

Phyllactinia

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P. guttata *P. fraxini*

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P. pistaciae *P. moricola* *Corylus*

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Mespilus germanica *Crataegus* spp.

Pyrus communis *P. mali*

P. guttata *Pyrus communis*

Cornus

Cornus sp.

P. corni

Cornus sanguinea

()

P. corni

Phyllactinia

Cornus

()

P. guttata

Corylus avellana

P. guttata

P. guttata

P. guttata

P. guttata

) *Corylus*

(

P. guttata

P. guttata

P. guttata

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Erysiphaceae

144-145

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