% > @ B 5 = 7 8 O - Hydrangea

gradinar, 2 B > @ = 8 : 06 > : B > < 2 @ 8 2009 - 14:02:09

" > 2 0 ? 8 I = > F J D B O I > @ 0 A B 5 = 8 5 > B A 5 < 5 9 A B 2 >
 0 < 5 = > ; > < : > 2 8 (Saxifragaceae) = 0 9- G 5 A B > A 5 > B- 3 ; 5 6 4 0 2
3 @ 0 4 8 = 0 B 0, = > < > 6 5 8 2 4 > < 0.

% > @ B 5 = 7 8 O B 0(Hydrangea) A ? 0 4 0 : J < A 5 < 5 9 A B 2 > B > = 0
: 0 < 5 > ; > < : 8 B 5 (Saxifragaceae).

% > @ B 5 = 7 8 8 B 5 A 0 ; 8 A B > ? 0 4 = 8, 5 4 @ > ; 8 A B = 8, 4 5 : > @ 0 B 8 2 = 8
E @ 0 A B G 5 B 0 ; 8 0 = 8, ? >- @ O 4 : > - = 5 3 > ; 5 < 8 4 @ J 2 G 5 B 0. " O
? @ 8 B 5 6 0 2 0 < = > 3 > G 8 A ; 5 8 F 2 5 B G 5 B 0, A J 1 @ 0 = 8 2 3 > ; 5 < 8
B > ? : > 2 8 4 = 8 A J F 2 5 B 8 O, > F 2 5 B 5 8 2 @ 0 7 ; 8 G = 8 O @ : 8 F 2 5 B > 2 5:
@ > 7 > 2 >, G 5 @ 2 5 = >, 1 O ; > 8 4 0 6 5 A 8 = L >. 4 = > > B
? @ 5 8 < C I 5 A B 2 0 B 0 = 0 : @ 0 A 8 2 2 8 B 5 F 2 5 B > 2 5 5 B > 2 0, G 5 ? >
? @ 8 = F 8 ? B 5 A 0 < = > 3 > B @ 0 9 = 8.

  1 @ 0 7 C 2 0 : > = > A > 2 8 4 = 8 B C D 8 A 2 8 A > G 8 = 0 1,20 - 1,80 A <. 8 H 8 @ 8 = 0 -
1,80 - 2,40 A <.

  8 A B 0 B 0 A 0 B J < = > 7 5 ; 5 = 8, ? > 4 > 1 = 8 = 0 4 J 1 > 2 8 B 5. " 5, : 0 : B > 8
F 2 5 B > 2 5 B 5, A 8 ? @ > < 5 = O B F 2 5 B 0 ? @ 5 7 A 5 7 > = 8 B 5.   @ 5 7 5 A 5 = 0
A B 0 2 0 B A @ 5 1 @ 8 A B 8 8 ; 8 ? C @ ? C @ = 8.

  > - A B 0 @ 8 B 5 A B 5 1 ; 0 A 5 1 5 ; O B ? @ 5 7 7 8 < 0 B 0 8 > B 4 > ; ; C A 5
? > O 2 O 2 0 B J < = : 0 D O 2 0 : > @ 0. " 5 A 0 O ? > = = A : 8 F 2 5 B O, 0 2 8 4 > 2 5 B 5
8 < A 0 > : > ; > 80.

O : > 9 2 8 4 > 2 5:

  0 9- @ 0 7 ? @ > A B @ 0 = 5 = 8 B 5 @ 0 7 = > 2 8 4 = > A B 8 = 0 E > @ B 5 = 7 8 O B 0 A 0
12, : 0 B > A 1 O ; > 1 ; 8 8 A J A A 8 B 5 F 2 5 B G 5 B 0 5   **J @ 2 > 2 8 4 0 B 0**

E > @ B 5 = 7 8 O (H. arborescens)   . " > 2 0 5 A 5 2 5 @ > > < 0 < 5 @ 8 : 0 = : 8 E @ 0 A B,
2 8 A > : : 5 4 8 = = @ O 4 : > 4 2 0 B 8 < 5 B @ 0. 8 A B 0 B 0 < C A 0 5 4 8 (4 > 2 0 A <),
> 2 0 ; = 8, > B 3 > @ 5 O @ > ? 5 ; 5 = 8, 0 > B 4 > ; ; C A 8 2 >- A 8 = : 0 2 8. # = 0 A 2
? > A B C 4 5 = 8 B 5 @ 0 9 > = = 8 ? > = O : > > 3 0 ? @ 5 7 < J 7 2 0, = > 8
= 0 B J ? 2 0 = 5 B > = 0 ? @ > ; 5 B B 0 1 J @ 7 > A 5 2 J 7 A B 0 = > 2 2 O 2 0 8 A ; 5 4
B > 2 0 > 1 8 ; = 8 = F J D B 8.   ? >- B > ? ; 8 B 5 @ 0 9 > = 8 < > 6 5 4 0 @ 0 4 > 2
= 5 4 > A B 8 3 0 2 ; 0 3 0.

  4 @ > ; 8 A B = 0 B 0 E > @ B 5 = 7 8 O (H. macrophylla)   5 @ > 4 > < > B 7 B > G = 0   7 8 O
(8 B 0 9 8 8 / ? > = 8 O). " O ? @ 8 8 0 4 ; 5 6 8 : J < G 8 O ; > = B > = 0

= 0 9- @ 0 7 ? @ > A B @ 0 = 5 = 8 B 5 3 @ 0 4 8 = A : 8 @ 0 A B 5 = 8 O 2 A 2 5 B 0.
 B = 0 A O B A 5 : J < 1 J @ 7 > @ 0 A B O I 8 B 5 2 8 4 > 2 5, : 0 B > 2 @ > 4 8 = 0 B 0 A 8
4 > A B 8 3 0 B 2 8 A > G 8 = 0 4 <., = > ? @ 8 4 2 8 6 2 0 9 : 8 A 5 = 0 A 5 2 5 @
= 0 < 0 ; O 2 0 B @ 0 7 < 5 @ 0 A 8 4 > 1,2 <. ; J B = 8 B 5 O @ : > 7 5 ; 5 = 8
1 ; 5 A B O I 8 ; 8 A B 0 > 1 8 ; = > ? > : @ 8 2 0 B 3 J A B > B > E @ 0 A B G 5.
 > ; 5 < 8 B 5 (4 > 2 0 A <.), ? ; J B = 8, B > ? : > 2 8 4 = 8 A J F 2 5 B 8 O
> 1 8 : = > 2 5 = > 1 8 2 0 B @ > 7 > 2 8 = 0 A ; 0 1 0 : : 0 ; = 0 ? > G 2 0, 0 = 0
: 8 A 5 ; 0 = 5 1 5 A = > A 8 = 8. O 4 : > A 5 A @ 5 I 0 B 8 1 5 ; 8. < 0 < = > 3 >
D > @ < 8, 0 A J I > B 0 : 0 8 E 8 1 @ 8 4 8 E > @ B 5 = 7 8 8 A J A 7 0 > A B B @ 5 = 8
A J F 2 5 B 8 O.

 >- @ 0 = > A 5 A < O B 0 ; >, G 5 B > 2 0 @ 0 A B 5 = 8 5 < > 6 5 4 0 @ 0 A B 5 A 0 < > 2
B > ? ; 8 B 5 : @ 0 8 I 0, = > A C A 8 ; O B 0 = 0 5 = B C A 8 0 A B 8 ; N 1 8 B 5 ; 8 B >
4 > A B 8 3 0 8 ? >- A 5 2 5 @ = 8 < 5 A B 0, : J 4 5 B > 7 0 4 J ; 6 8 B 5 ; = > B @ O 1 2 0
4 0 1 J 4 0 B ? > : @ 8 2 0 = 8 ? @ 5 7 7 8 < 0 B 0. " > 7 8 2 8 4 5 ? > 4 E > 4 O I 8 7 0
> B 3 ; 5 6 4 0 = 5 2 A 0 : A 8 O. : > 2 8 5 A B 5 A 8 : C ? 8 ; 8 B 0 : 0 2 0
E > @ B 5 = 7 8 O 7 0 2 0 H 0 B 0 3 @ 0 4 8 = 0 = 5 A 5 A B @ 0 E C 2 0 9 B 5 4 0 O
7 0 A 0 4 8 B 5 2 7 5 < O B 0.

 8 A 5 ; 0 B 0 ? > G 2 0 7 0 = 5 O < > 6 5 4 0 ? > 4 3 > B 2 8 B 5 4 > = 0 O 9 : 8 7 5 < O
> B 1 ; 0 B 8 A B > < O A B >. 5 ; 0 B 5 ; = > 5 ? 5 @ 8 > 4 8 G = > 4 0
? > 4 E @ 0 = 2 0 B 5 E > @ B 5 = 7 8 B >. 1 0 G 5 ? @ 5 7 5 A 5 = = 0 > B > 2 >
B @ O 1 2 0 4 0 3 > A ; > 6 8 B 5 2 A 0 : A 8 O 8 ? @ 5 4 8 ? J @ 2 8 8 B 0 A B 4 O 2 0 = 8 O
4 0 3 > 2 = 5 A 5 B 5 = 0 B 5 @ 0 A 0 B 0 8 ; 8 2 A B 0 O B 0, 0 > B > 5 < 2 @ 8 4 0 3 >
4 J @ 6 8 B 5 2 < 0 7 5 B > ? @ 8 B 5 < ? 5 @ 0 B C @ @ 0 5-6?! 8 @ O 4 : > > 4 0 3 8
> 2 ; 0 6 = O 2 0 B 5. 8 A B 0 B 0 ? 0 4 0 B E > @ B 5 = 7 O B 0 ? > G 8 2 0 .

 @ 5 7 D 5 2 @ C 0 @ 8 3 8 ? > A B 0 2 5 B 5 = 0 ? @ > 7 > @ 5 F 0 8 7 0 ? > > G = 5 B 5 4 0
3 8 ? @ J A : 0 B 5 8 ? > ; 8 2 0 B 5. @ 5 7 < 0 9 2 8 5 I 5 I 5 ? > ; C G 8 B 5 3 > ; 5 < 8
A J F 2 5 B 8 O 8 < > 6 > B = > 2 > 4 0 3 8 = 0 A 0 4 8 B 5 2 ? > G 2 0 B.
 0 A B 5 8 5 B > > B ; 8 G = > 5 ? > > A O ? @ 5 A 0 0 6 4 0 = 5 B > ? > 2 > @ 5 = 5 0
F J D B 5 6, 5 A B 5 A B 2 5 = > A B C D 0 7 5 < O. = 5 7 0 1 @ 0 2 O B 5 4 0 3 >
? > ; 8 2 0 B 5 > B 4 C H 0.

% > @ B 5 = 7 8 O E 5 B 5 @ > < 0 ; 0 (H. heteromalla, H. bretschneideri).   @ > 4 8 = 0 B 0 A 8,
! 5 2 5 @ 5 = 8 B 0 9, 8 7 @ 0 A B 2 0 4 > 3 <. 2 0 H 8 B 5 3 @ 0 4 8 = 8
> 1 8 : = > 2 5 = > 4 > A B 8 3 0 > B 0,5 4 > 2 <. = > 3 > > @ 8 3 8 = 0 ; = 8
A J F 2 5 B 8 O (10-15 A <.), : > B > 8 7 F O ; > A 0 @ 0 7 ? > ; > 6 5 = 8 = 0 7 5 ; 5 = 8
 ? ; 0 B D > @ < 8, : 0 B > 1 5 ; > A = 5 6 8 7 5 7 5 @ C 4 8. >- : J A = >
B 5 E = 8 B 5 : 8 ; 0 A B 0 2 0 B @ > 7 2 8 8 ? C @ ? C @ @ 0 = 8. 8 A B 0 B 0 (4 > 1 2 A <.)
A 0 O 9 F 5 2 8 4 = 8 8 B J < = > 7 5 ; 5 = 8. A 5 A B 2 5 = > B > 7 8 2 8 4 = 5 5
? @ 8 2 5 : 0 B 5 ; 5 = 7 0 3 @ 0 4 8 = 0 8 B 5, : 0 : > > A B 0 = 0 ; 8 B 5, = >
; N 1 8 B 5 ; 8 B 5 = 0 B J : : 0 B 0 8 3 @ 0 A ? 8 @ > 4 0 ? > 8 @ > 4 0 B 0 3 > F 5 = O B 2 8 A > : >.
" 0 7 8 E > @ B 5 = 7 8 O 5 = 0 9- A C E > 8 A B C C A B > 9 G 8 2 0 A @ 5 4 A 2 > 8 B 5
A 5 A B @ 0 8. & J D B 5 6 J B 7 0 2 J @ H 2 0 ? @ 5 7 0 2 3 C A B 8 > B 8 2 0 9 : J <
5 A 5 = B 0 0 4 7 5 < = 0 B 0 G 0 A T = 0 B 0 A = 0 ? J ; = > > B < 8 8 = 0, ? > 4 A = 5 3 0, ? > 4 A = 0 0 ; 8 B 5, = >
7 8 < C 2 0 8 = 0 ? @ > ; 5 B E @ 0 A J B 1 J @ > A 5 2 J 7 A B 0 = > 2 O 2 0.
A C E > B > ; B > A 5 = C 6 4 0 5 > B ? > ; 8 2 0 = 5.

@ C 3 8 = B 5 @ 5 A 5 = 2 8 4 > B / ? > = 8 O, 8 B 0 9, 8 . 6 5 = ! 0 E 0 ; 8 =,
: J 4 5 B > G 5 A B > 8 < 0 2 8 4 = 0 4 J @ 2 > 2 8 A > : > 4 > 1 0 <. 5

5 B ; > 2 8 4 = 0 B 0 E > @ B 5 = 7 8 O (H.paniculata).   = 0 H 8 B 5 C A ; > 2 8 O B > 7 8
5 4 J @ E @ 0 A B 8 7 @ 0 A B 2 0 > B 2 4 5 <. = B 5 @ 5 A = 0 E > @ B 5 = 7 8 O 5
 ? 0 H 0 B 0 B 0 8 ; 8   **0 7 5 I 0 B 0 E > @ B 5 = 7 8 O (H.petiolaris, H scandens).**   " O
? @ 5 4 A B 0 2 ; O 2 0 ; 8 0 = 0, : > O B > A 5 8 7 4 8 3 0 = 0 3 > @ 5 ? >
A B 2 > ; > 2 5 B 5 = 0 4 J @ 2 5 B 0 B 0 4 > 2 8 A > G 8 = 0 2 5 <. ! @ 5 4 : 8, 1 5 ; 8 8 ; 8
1 O ; > @ > 7 2 8 A J F 2 5 B 8 O. ; 0 3 > 4 0 @ 5 = 8 5 = 0 < = > 3 > B >
2 J 7 4 C H = 8 : > @ 5 = 8 ; 8 0 = 0 B 0 A 7 0 4 J @ 6 0 7 0 : > @ 0 B 0 = 0
4 J @ 2 5 B 0 B 0, A B 5 = 8 8 A B J ; 1 > 2 5. 5 7 > ? > @ 0 B O A 5 A B 5 ;e ? >
7 5 < O B 0.

 = 0 H 8 B 5 ? 0 @ : > 2 5 8 3 @ 0 4 8 = 8 > A 5 = 8 7 1 @ > 5 = 8 B 5 2 8 4 > 2 5,
< > 3 0 B 4 0 A 5 A @ 5 I = 0 B 8   **" @ 8 > = > 2 8 4 = 0 B 0(H.serrata),   > 4 ; 8 2 0 B 0(H.aspera),**
J 1 > 2 8 4 = 0 B 0 (H.quecifolia)   E > @ B 5 = 7 8 O, : 0 : B > 8 B 5 E = 8 B 5 @ 0 7 ; 8 G 8
D > @ < 8.

 0 3 @ 8 B 5 8 < 2 0 @ 8 @ 0 B > B G 5 @ 2 5 = >, @ > 7 > 2 8 1 O ; > 4 >
@ 0 7 ; 8 G = 8 B 5 = N 0 = A 8 = 0 2 8 > ; 5 B > 2 > 8 A 8 = L > B >.
 = > 3 > 1 @ > 9 8 B 5 @ 0 7 = > 2 8 4 = > A B 8 = 0 E > @ B 5 = 7 8 O B 0 A 5
@ 0 7 ; 8 G 0 2 0 B : 0 : B > ? > @ 0 7 < 5 @ 8, B 0 : 8 ? > D > @ < 0. A 8 G : 8 B 5
> 1 0 G 5 < 0 B = O : > 8 > 1 I 8 > A > 1 5 = > A B 8 ? @ 8 > B 3 ; 5 6 4 0 = 5 B >, A
: > 8 B > I 5 2 8 = 0 7 0 ? > 7 = 0 5 <.

 5 @ 8 > 4 = 0 F J F B 5 = 5:
. = 8 8 N ; 8. : 7 5 < ? ; O @ 8 B 5, : > 8 B > F J F B O B > B < 0 @ B 4 > < 0 9 A 0
? @ 5 4 2 0 @ 8 B 5 ; = > > B 3 ; 5 4 0 = 8 > B A 5 F 8 0 ; 8 A B 8.

 O A B >:
" > 2 8 @ 5 5 = 0 9- 4 > 1 @ 5 = 0 A = G 5 A B 8 ; 8 ? > ; C A 5 = G 5 A B > < O A B >.
 0 4 0 @ 0 7 3 J @ = 5 A A J F 2 5 B 8 O B 0 A 8 2 F O, > B > 8 < 2 5 ; 8 : > ; 5 ? 8 5, = 0
E > @ B 5 = 7 8 O B 0 9 5 = 5 > 1 E > 4 8 < > ? > ; C 5 A A 2 > 1 4 = > < O A B >.

 ! 2 5 B ; 8 = 0:
" > 2 0 F 2 5 B 5 = 5 > 1 8 G 0 ? @ O : 0 B 0 A ; J G 5 2 0 A 2 5 B ; 8 = 0.. " O
? > = 0 O O A 8 ; > > A ; J = F 5 4 > G 0 A B 8 G 0 A O = : 0. : > ? @ 5 7 ; O B > B >
@ 0 A B 5 = 8 5 B > = 0 ? > - E ; 0 4 = >, B > F 2 5 B > 2 5 B 5 < C I 5 8 7 4 J @ 6 0 B
? > - 4 J ; 3 > A 2 5 6 8.

 > G 2 0:
 0 9 - 4 > 1 @ 5 @ 0 A B 5 2 1 > 3 0 B 0, A @ 5 4 = > 2 ; 0 6 = 0, 4 > 1 @ 5
> B F 5 4 0 I 0 A ? > G 2 0. 8 A 5 8 = = > A B B 0 B B @ O 1 2 0 4 0 5 A pH 6.5 - 4.5.

 " > @ 5 = 5:
! ; 5 4 N ; 8, ? > 2 @ 5 < 5 = 0 F J F B 5 6 0, A 5 ? @ 5 ? > @ J G 2 0 F 2 5 B 5 B > 4 0
A 5 B > @ 8 @ 5 4 > 2 =.

 > ; 8 2 0 = 5:

;8O=85=0 %>@B5=78OB0:

;8O=85=0 E>@B5=78OB0 =00B<>AD5@0B0 2:JI8

>1;8:08 E0@0:B5@0 =0 E>@B5=78OB0 A5 AJ548=O20B <0=85@8B5=0 2J74CH=8B5 57=8875<<=0B0 5=5@0.

0AB5=85B> 873;5640 8AB8=A:8 74@025=O:, C:@0A5= A 3>;5<8 F25B>25,- B>20 OA==> ?@>O2;5=85 =0 75<=0B0 5=5@0, 254=030 70O2O20 70 A2>8B5 ?>B@51=>AB8: 75<O ACE0, 604=0 70 AB8E8O, 70 B>20 E>@B5=78OB0 878A:20 >18;=> ?>;820=5. 0 =5O AJI> 85 =C6=0 ?@>E;040. ">20 25G55 3;0A =0 2J74CH=8B5 57=8. N1>2B0 :J< 2;030=0B0 8 ?@>E;040B0 3>2>@OB 70 5<>F8>=0;5=, =>;5: E0@0:B5@, 4020I=0 E>@B5=78OB0 A?>A>1=>AB 40 ?@>G8AB20 2 ?@>AB@0=AB2>B> >:>;> A515A8 85=5@38OB0 >B B56:8 5<>F88 8 GC2AB20: 7028AB, @52=>>AB, ?@57@5=85 8 ;>H> =0AB@>5=85. 1;5:G020I>B> 459AB285=0 E>@B5=78OB0 A5 >:0720 ?>;57=> 70 2A5:8 4><, 70I>B> =8B> 548= G>25: =5 5 70AB@0E>20= >B ;>H> =0AB@>5=85.

;8O=85=0 74@025B>

;03>40@5=85=0 A8;=0B0 75<=0 5=5@0- ?;0=5B0B0 =0 :@0A>B0B0 8 GC2AB25=8B5 C4>2>;AB28O %>@B5=78OB0 ?><030 =0 G>25:40 =0?@028 :@0A82> A2>5B> BO;>;>. :>2 4><JB8<0 B0:>20 @0AB5=85, 4>#G0485B> ;5A=> I5 A5 >B:0720 >BA;04:0B0 8 B;JAB0B0 E@0=0, >B B5AB5=8B5 ?@>4C::B8

;8O=85=0 5<>F8>=0;=>B> AJAB>O=85

5<>> 2J74CH=0B0 E>@B5=78O A5 >:0720 4>AB0 ?>;57=0 8 70B578, :>8B> 28B0OB2 >1;0F8B5 =O<0B ?@0:B8G5A:0 68;:0, <>>3>, => I57 @57C;B0B> A5 AC5B>B, 8 70 B578, :>8B> 74@02> A0 ABJ??8;8 =0 75<OB0, =5 ?>24830B0 3;020 =0 3>@5. %>@B5=78OB0 C@02=>25AO20 2 G>25:0 75<=0B0 ?@0:B8G=>AB 8 2J74CH=8B5 <5GB8.