Determined by Dr. David L. Meyer, Univ. Cincinnati

Specimen ID: USNM E20025 "-1"			AC's Sp	AC's Specimen ID: AC 6a Dried		
		ies: D. discoidea Pavid aster	Date Exa	Date Examined: 10.30.03		
W	as :	sample photograhed before analysis?	Yes	After analysis? No		
Ar	ea	Variable	Value	Notes		
		Centrodorsal Diameter	5.5			
Ī	centrodorsal	Centrodorsal Polar Diameter	4.9			
	0	Centrodorsal Height	0.8			
- 8	Ö	Centrodorsal Shape	2	discoidal		
•	E	# Cirral Sockets	25			
(3	Cirral Socket Arrangement	4	one row		
		Cirral Socket Shape	1	circular		
	Г	# Cirral Segments	12			
	-	# Segments Ornamented	2			
		Cirral Length	9.3			
	Cir.	3rd Cirral Segment Length	1.2			
S		Antepenultimate Segment Length	0.5			
Cirrais		Cirral Ornamentation Type?	1	slight carinae		
5	2	# Cirral Segments	13			
	Cir.	# Segments Ornamented	2			
	O	Cirral Length	10.5			
	3	# Cirral Segments	13			
		# Segments Ornamented	2			
		Cirral Length	9.8			
		IBr A, # Primibrachials on A Ray	2			
		IIBr A, # Secundibrachials on A Ray	4			
		IIIBr A, # Tertibrachials on A Ray	3			
		1st Triangular Brachial on A4	7			
		Brachials Spinose?	1	yes		
		Arm Width at 1st Syzygy on A4	1.4			
		1st Syzygy Position on A4	2(3)			
		2nd Syzygy Position on A4	8(9)			
U	,	3rd Syzygy Position on A4	13(14)			
ž		4th Syzygy Position on A4	18(19)			
0		5th Syzygy Position on A4	23(24)			
Rave / Arme	2	6th Syzygy Position on A4	28(29)			
Š	3	# Arms A	5			
Bridge.	.	# Arms B	4			
		# Arms C	3			
	-	# Arms D	4			
		# Arms E	4			
		Arm Length A4	85	broken near tip		
		Arm Length B4	28	broken near base		
		Arm Length C4	12.8			
		Arm Length D4	136			
		Arm Length E4	75			

T	PD Comb Teeth Double or Single?	2	double
	PD Tube Feet Present?	1	present
PD	PD # Segments	38	
-	PD # Comb Teeth	8	
	PD Leng A1	14.0	
	PP Comb Teeth Double or Single?	2	double
	PP Tube Feet Present?	1	present
РР	PP # Segments	>13	broken on both ends
	PP # Comb Teeth	unk.	none observed, broken
1	PP Leng A1	>5.0	broken on both ends
-	P1 Comb Teeth Double or Single?	2	double
	P1 Tube Feet Present?	0	absent
7	P1 # Segments	30	
1-	P1 # Comb Teeth	10	
-	P1 Leng A1	9.5	
-	P2 Comb Teeth Double or Single?	2	double
	P2 Tube Feet Present?	1	present
P2		37	1
1	P2 # Comb Teeth	11	
	P2 Leng A1	13.3	
	# Pinnules w/ Comb Teeth After 2nd Oral Pinn. on A1	0	unsure
	Distal Pinnule # Segments	19	
stal	Distal Pinnule Spinose?	1	yes
isi	Distal Pinnule Leng A1	9.5	
10	Distal Pinnule Arrangement	1	radial posture
	Sex?	unk.	
	# Regenerated Arms	0	1990

Overall sample quality?

Very hard to examine -- arms were tightly folded.

Sample coloration?

Able to orient sample to A ray?

No -- had to assign an A ray.

Any notes on pinnules, etc.:

Very, very difficult to measure pinnules.

	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	ies: <i>D. discoidea</i> sample photograhed before analys	sis? Ye	PARTY INVESTIGATION OF THE PARTY IN THE PART	mined: 10.31 & 11.
	ea			After analysis? No	
	ca			Value	Notes
	7	Centrodorsal Diameter		4.2	
	S	Centrodorsal Polar Diameter		3.3	
,	8	Centrodorsal Height	-	0.7	
	5	Centrodorsal Shape		2	discoidal
	en	# Cirral Sockets	policies and the second	20	
	ပ	Cirral Socket Arrangement		4	one row
	П	Cirral Socket Shape		1	circular
		# Cirral Segments		12	
	-	# Segments Ornamented		2	
	Cir.	Cirral Length		7.0	
	O	3rd Cirral Segment Length		0.8	
		Antepenultimate Segment Length Cirral Ornamentation Type?		0.5	3 49947
)	7	# Cirral Segments		2	single spines
		# Segments Ornamented		12	
	Cirr	Cirral Length		2	
	_	# Cirral Segments		8.9	
	-	# Segments Ornamented		12	
	Cirr.	Cirral Length		2	
23		IBr A, # Primibrachials on A Ray		8.1	
		IIBr A, # Secundibrachials on A Ray		2	
		IIIBr A, # Tertibrachials on A Ray		4	
		1st Triangular Brachial on A4		0	
		Brachials Spinose?		7	
		Arm Width at 1st Syzygy on A4		1 1	yes
		1st Syzygy Position on A4	A3	1.4	
		2nd Syzygy Position on A4	A3	2(3)	
		3rd Syzygy Position on A4	A3	9(10)	10
Pare		4th Syzygy Position on A4	A3	14(15)	
Ar		5th Syzygy Position on A4	A3	19(20)	
U		6th Syzygy Position on A4	A3	24(25) 29(30)	
		# Arms A	7.0	4	
•	.	# Arms B	. ,	4	
		# Arms C		4	
	- 8	# Arms D		4	
		# Arms E		4	
		Arm Length A4		65	broken
		Arm Length B4		74	broken
		Arm Length C4		90	broken
		Arm Length D4		120	possibly unbroken
		Arm Length E4		1 2 3	possibly unbroken

-				
	PD	PD Comb Teeth Double or Single?	2	double
		PD Tube Feet Present?	1	present
		PD # Segments	44	
		PD # Comb Teeth	11	
		PD Leng A1	16.0	
		PP Comb Teeth Double or Single?	2	double
1		PP Tube Feet Present?	1	present
	PP	PP # Segments	37	
		PP # Comb Teeth	10	
		PP Leng A1	11.0	
		P1 Comb Teeth Double or Single?	2	double
<u>6</u>		P1 Tube Feet Present?	0	absent
Pinnules	P1	P1 # Segments	28	= 9
I E		P1 # Comb Teeth	9	
_		P1 Leng A1	9.0	
1		P2 Comb Teeth Double or Single?	2	double
		P2 Tube Feet Present?	0	absent
	P2	P2 # Segments	21	
		P2 # Comb Teeth	9	
		P2 Leng A1	5.5	
	Distal	# Pinnules w/ Comb Teeth After 2nd Oral Pinn. on A1	2	
1		Distal Pinnule # Segments	19	
1		Distal Pinnule Spinose? Distal Pinnule Leng A1	1	yes
		Distal Pinnule Leng A1	9.0	
		Distal Pinnule Arrangement	1	radial posture
		Sex?	unk.	
		# Regenerated Arms	0	

Overall sample quality?

Difficult to measure arm lengths due to arm tips curled and entwined

Sample coloration?

Pale, dusty tan with darker pinnules

Able to orient sample to A ray?

Yes

Any notes on pinnules, etc.:

Oral pinnule measurements okay

Slight keel developed on P1 & P2 -- less developed than on D. rubiginosa

D	cie	nen ID: USNM E20025 "-3" es: <i>D. discoidea</i>		AC's Specimen ID: AC 6c Dried Date Examined: 11.02.03		
Na	S S	ample photograhed before analysis?	Yes A	fter analysis? No		
Are	a	Variable	Value	Notes		
710		Centrodorsal Diameter	4.1			
-		Centrodorsal Polar Diameter	3.8			
7		Centrodorsal Height	0.5			
5		Centrodorsal Shape	2	discoidal		
44		# Cirral Sockets	17			
Confrodoreal		Cirral Socket Arrangement	4	one row		
C	1	Cirral Socket Shape	1	circular		
		# Cirral Segments	12			
		# Segments Ornamented	2			
	~	Cirral Length	8.3			
	Cirr.	3rd Cirral Segment Length	1.0			
	O	Antepenultimate Segment Length	0.4			
2		Cirral Ornamentation Type?	1	slight carinae		
Cirrais	2	# Cirral Segments	12			
3		# Segments Ornamented	2			
	Cirr	Cirral Length	7.6			
	-	# Cirral Segments	12			
		# Segments Ornamented	3			
	Cir.	Cirral Length	7.2			
		IBr A, # Primibrachials on A Ray	2			
		IIBr A, # Secundibrachials on A Ray	4			
		IIIBr A, # Tertibrachials on A Ray	3			
		1st Triangular Brachial on A4	7			
		Brachials Spinose?	1	yes		
		Arm Width at 1st Syzygy on A4	1.2			
		1st Syzygy Position on A4	3(4)			
		2nd Syzygy Position on A4	8(9)			
		3rd Syzygy Position on A4	13(14)			
	MS MS	4th Syzygy Position on A4	18(19)			
	Ari	5th Syzygy Position on A4	23(24)			
-	-	6th Syzygy Position on A4	28(29)			
	Rays / Arms	# Arms A	5			
	œ	# Arms B	4			
		# Arms C	3			
		# Arms D	4			
		# Arms E	4			
		Arm Length A4	38	all arms broken		
		Arm Length B4	45	regenerated		
		Arm Length C4 C1	45	regenerated		
		Arm Length D4	25	regenerated		
1		Arm Length E4	28	regenerated		

		Tath Dauble or Single?		2	double
. 1		PD Comb Teeth Double or Single?		0	absent
		PD Tube Feet Present?		35	
		PD # Segments		9	
		PD # Comb Teeth	1	10.6	
		PD Lend A L		2	double
		PP Comb Teeth Double or Single?		0	absent
		PP Tube Feet Present?		34	abount
	PP	PP # Segments		10	
		PP # Comb Teeth	4	9.7	
		PP Leng A1 C	1	THE PART OF STREET STREET	double
		P1 Comb Teeth Double or Single?		0	absent
Pinnules		P1 Tube Feet Present?			absent
2	7	P1 # Segments		18	
르		P1 # Comb Teeth		8	
1		P1 Leng A1	1	5.4	
	-	P2 Comb Teeth Double or Single?		2	double
		P2 Tube Feet Present?		0	absent
	2	P2 # Segments		21	
	1	P2 # Comb Teeth		8	
		P2 Leng A1	1	5.0	
	-	# Pinnules w/ Comb Teeth After 2nd Oral Pin	in. on A1	2	
	-	Distal Pinnule # Segments		17	
1	Distal	Distal Pinnule Spinose?		1	yes
1		Distal Pinnule Spinose? Distal Pinnule Leng A1		7.4	
		Distal Pinnule Arrangement	a 5.	1	radial posture
-		Sex?		unk.	
		# Regenerated Arms		11	
		Trogenerated Airie			

Overall sample quality?

Badly broken arms, but very easy to measure due to "crisp" preservation of delicate pinnules, etc.

Sample coloration?

Pale dun-colored, pinnules same color as arm

Able to orient sample to A ray?

Yes

Any notes on pinnules, etc.:

Much more delicate and gracile form than the other two individuals in this group.