

In [1]:

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.linear_model import LogisticRegression
from sklearn.preprocessing import StandardScaler
import re
from sklearn.datasets import load_digits
from sklearn.model_selection import train_test_split
```

set25:

In [191]:

```
a=pd.read_csv(r"C:\Users\user\Downloads\Book25.csv")
a
```

Out[191]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	O
0	1127	WEST UTTAR PRADESH	1901	51.4	25.6	9.5	0.7	5.6	23.8	201.9	374.3	67.7	
1	1128	WEST UTTAR PRADESH	1902	4.6	4.6	0.6	4.8	7.2	54.5	325.9	180.6	143.1	
2	1129	WEST UTTAR PRADESH	1903	13.4	0.4	1.2	0.0	8.2	32.7	145.4	279.1	150.4	17
3	1130	WEST UTTAR PRADESH	1904	6.3	2.0	29.7	0.4	24.8	68.5	358.8	311.1	97.1	
4	1131	WEST UTTAR PRADESH	1905	32.3	26.6	14.8	3.6	7.1	18.9	139.8	95.0	92.2	
...	
110	1237	WEST UTTAR PRADESH	2011	2.1	10.4	3.9	2.8	29.6	175.9	215.9	232.3	101.7	
111	1238	WEST UTTAR PRADESH	2012	14.5	0.1	1.4	4.7	0.3	4.0	145.1	149.1	67.8	
112	1239	WEST UTTAR PRADESH	2013	20.4	69.5	3.5	1.6	2.1	190.6	233.9	287.1	52.2	6
113	1240	WEST UTTAR PRADESH	2014	48.3	29.4	22.6	5.3	11.0	22.0	151.6	81.0	84.7	1
114	1241	WEST UTTAR PRADESH	2015	31.6	7.2	66.8	21.0	8.1	72.0	194.2	143.5	26.5	

115 rows × 20 columns



In [192]:

```
a.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 115 entries, 0 to 114
Data columns (total 20 columns):
#   Column          Non-Null Count  Dtype
---  -
0   index           115 non-null    int64
1   SUBDIVISION     115 non-null    object
2   YEAR            115 non-null    int64
3   JAN             115 non-null    float64
4   FEB             115 non-null    float64
5   MAR             115 non-null    float64
6   APR             115 non-null    float64
7   MAY             115 non-null    float64
8   JUN             115 non-null    float64
9   JUL             115 non-null    float64
10  AUG             115 non-null    float64
11  SEP             115 non-null    float64
12  OCT             115 non-null    float64
13  NOV             115 non-null    float64
14  DEC             115 non-null    float64
15  ANNUAL          115 non-null    float64
16  Jan-Feb         115 non-null    float64
17  Mar-May         115 non-null    float64
18  Jun-Sep         115 non-null    float64
19  Oct-Dec         115 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 18.1+ KB
```

In [193]:

```
b=a.fillna(method='ffill')
b
```

Out[193]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	O
0	1127	WEST UTTAR PRADESH	1901	51.4	25.6	9.5	0.7	5.6	23.8	201.9	374.3	67.7	
1	1128	WEST UTTAR PRADESH	1902	4.6	4.6	0.6	4.8	7.2	54.5	325.9	180.6	143.1	
2	1129	WEST UTTAR PRADESH	1903	13.4	0.4	1.2	0.0	8.2	32.7	145.4	279.1	150.4	17
3	1130	WEST UTTAR PRADESH	1904	6.3	2.0	29.7	0.4	24.8	68.5	358.8	311.1	97.1	
4	1131	WEST UTTAR PRADESH	1905	32.3	26.6	14.8	3.6	7.1	18.9	139.8	95.0	92.2	
...	
110	1237	WEST UTTAR PRADESH	2011	2.1	10.4	3.9	2.8	29.6	175.9	215.9	232.3	101.7	
111	1238	WEST UTTAR PRADESH	2012	14.5	0.1	1.4	4.7	0.3	4.0	145.1	149.1	67.8	
112	1239	WEST UTTAR PRADESH	2013	20.4	69.5	3.5	1.6	2.1	190.6	233.9	287.1	52.2	6
113	1240	WEST UTTAR PRADESH	2014	48.3	29.4	22.6	5.3	11.0	22.0	151.6	81.0	84.7	1
114	1241	WEST UTTAR PRADESH	2015	31.6	7.2	66.8	21.0	8.1	72.0	194.2	143.5	26.5	

115 rows × 20 columns

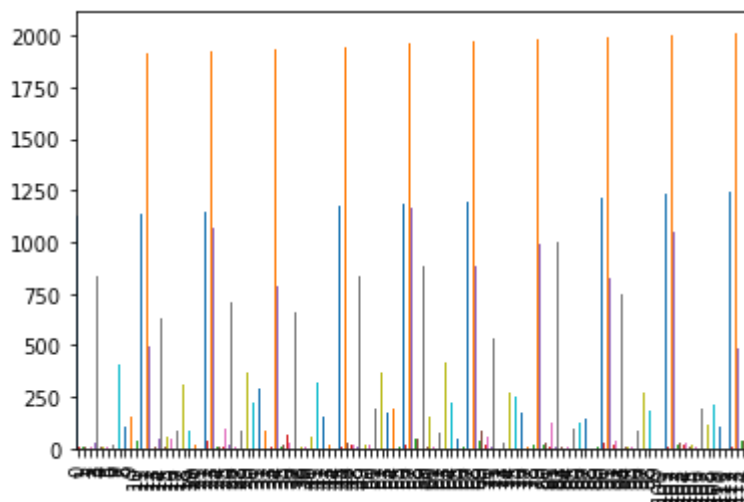


In [194]:

```
b.plot.bar(legend=None)
```

Out[194]:

<AxesSubplot:>

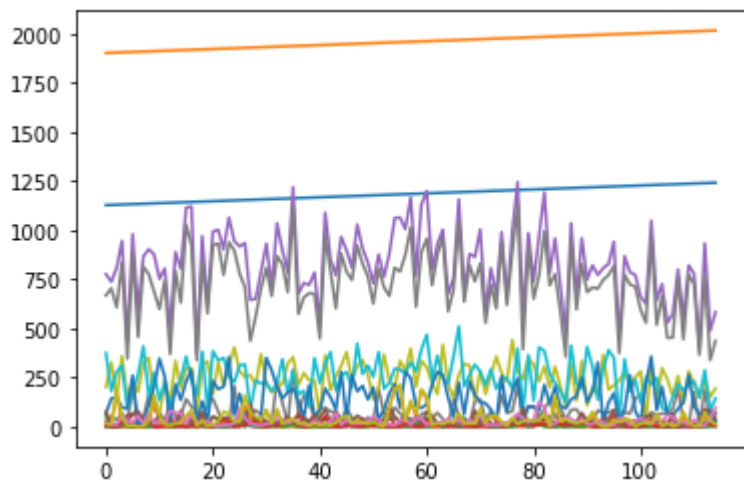


In [195]:

```
b.plot.line(legend=None)
```

Out[195]:

<AxesSubplot:>

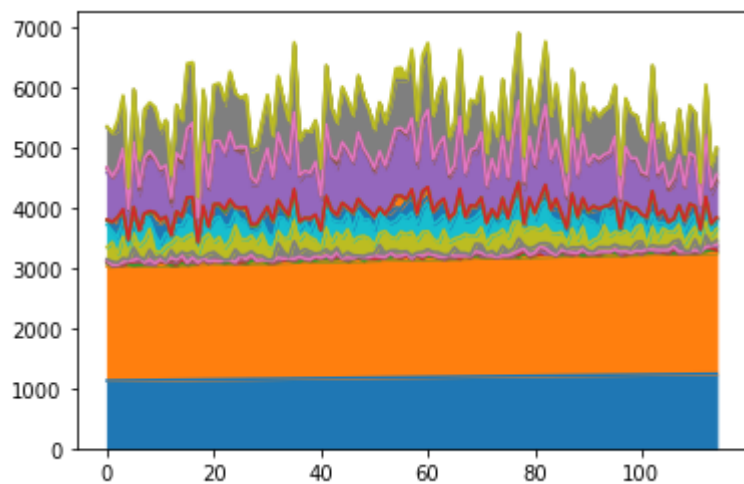


In [196]:

```
b.plot.area(legend=None)
```

Out[196]:

<AxesSubplot:>

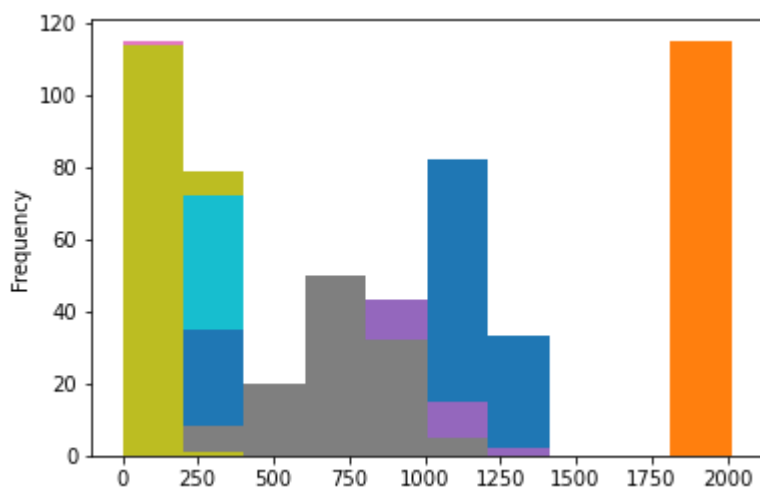


In [197]:

```
b.plot.hist(legend=None)
```

Out[197]:

<AxesSubplot:ylabel='Frequency'>

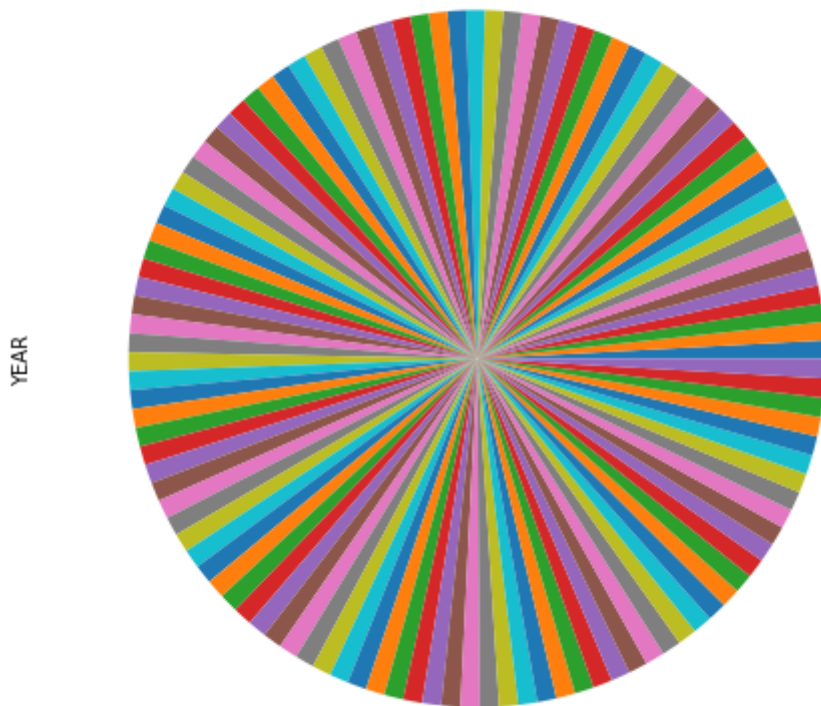


In [198]:

```
b.plot.pie(y='YEAR',figsize=(8,8),labels=None,legend=None)
```

Out[198]:

<AxesSubplot:ylabel='YEAR'>



set26:

In [199]:

```
a=pd.read_csv(r"C:\Users\user\Downloads\Book26.csv")
a
```

Out[199]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6
1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2
2	2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0
3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0
...
105	105	ANDAMAN & NICOBAR ISLANDS	2011	265.9	84.8	272.8	111.4	326.5	383.2	583.2	441.5	757.1
106	106	ANDAMAN & NICOBAR ISLANDS	2012	119.9	45.6	30.9	55.8	533.9	458.2	317.3	369.6	868.9
107	107	ANDAMAN & NICOBAR ISLANDS	2013	67.1	37.6	43.0	46.3	509.3	777.0	564.8	336.7	473.6
108	108	ANDAMAN & NICOBAR ISLANDS	2014	41.9	8.6	0.0	11.1	238.0	416.6	467.6	321.6	412.9
109	109	ANDAMAN & NICOBAR ISLANDS	2015	126.8	7.6	3.1	138.2	331.9	346.4	328.9	480.0	523.3

110 rows × 20 columns



In [200]:

```
a.info()
```

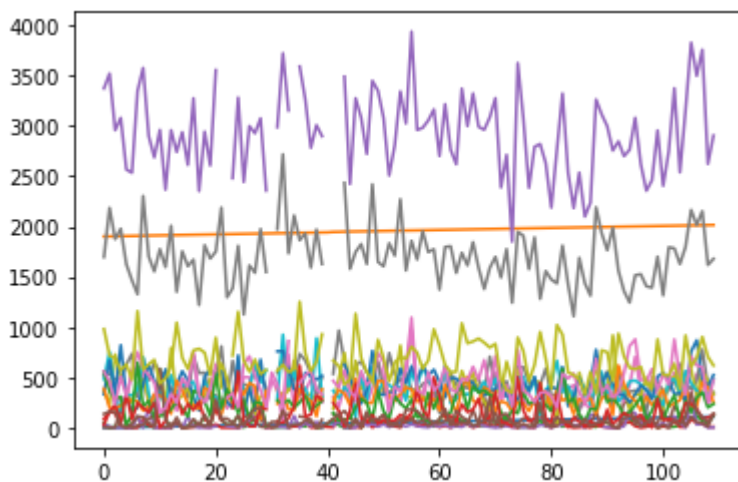
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 110 entries, 0 to 109
Data columns (total 20 columns):
 #   Column          Non-Null Count  Dtype
---  -
 0   index           110 non-null    int64
 1   SUBDIVISION     110 non-null    object
 2   YEAR            110 non-null    int64
 3   JAN             110 non-null    float64
 4   FEB             110 non-null    float64
 5   MAR             108 non-null    float64
 6   APR             108 non-null    float64
 7   MAY             109 non-null    float64
 8   JUN             108 non-null    float64
 9   JUL             108 non-null    float64
10   AUG             108 non-null    float64
11   SEP             107 non-null    float64
12   OCT             108 non-null    float64
13   NOV             108 non-null    float64
14   DEC             107 non-null    float64
15   ANNUAL          104 non-null    float64
16   Jan-Feb         110 non-null    float64
17   Mar-May         107 non-null    float64
18   Jun-Sep         107 non-null    float64
19   Oct-Dec         107 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 17.3+ KB
```

In [201]:

```
a.plot.line(legend=None)
```

Out[201]:

<AxesSubplot:>

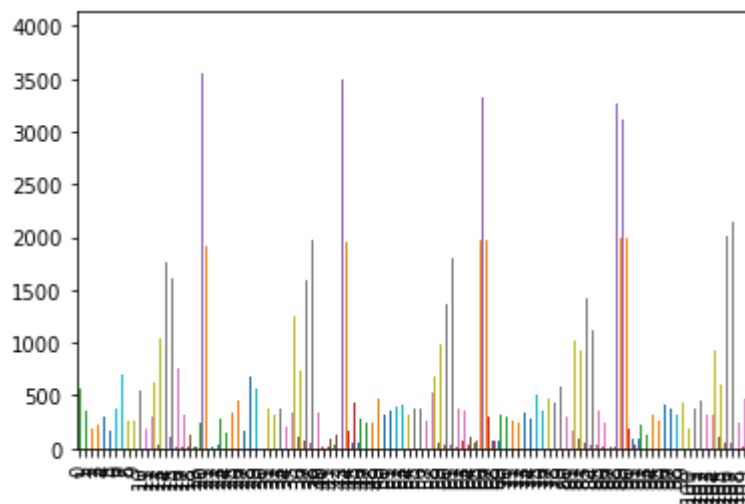


In [202]:

```
a.plot.bar(legend=None)
```

Out[202]:

<AxesSubplot:>

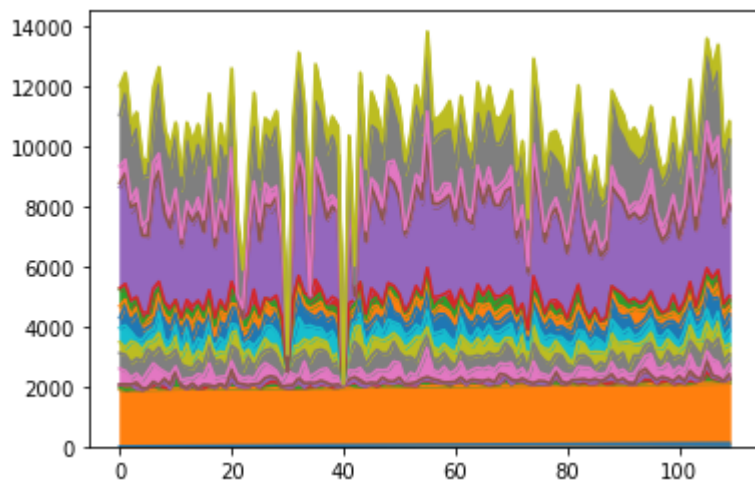


In [203]:

```
a.plot.area(legend=None)
```

Out[203]:

<AxesSubplot:>

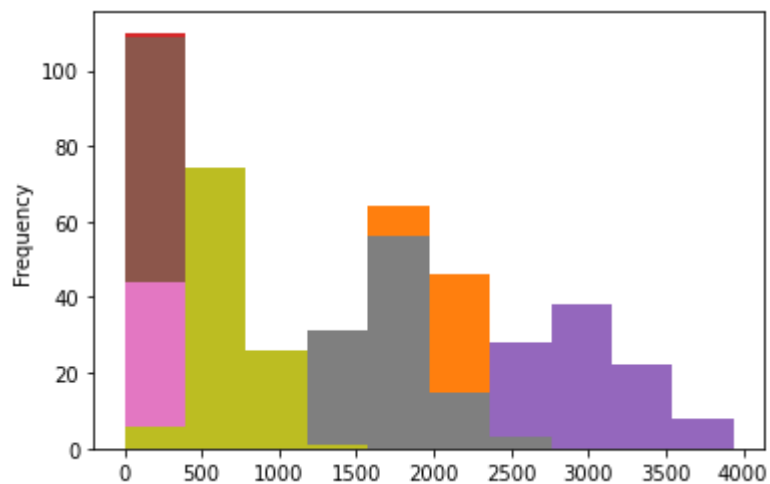


In [204]:

```
a.plot.hist(legend=None)
```

Out[204]:

<AxesSubplot:ylabel='Frequency'>

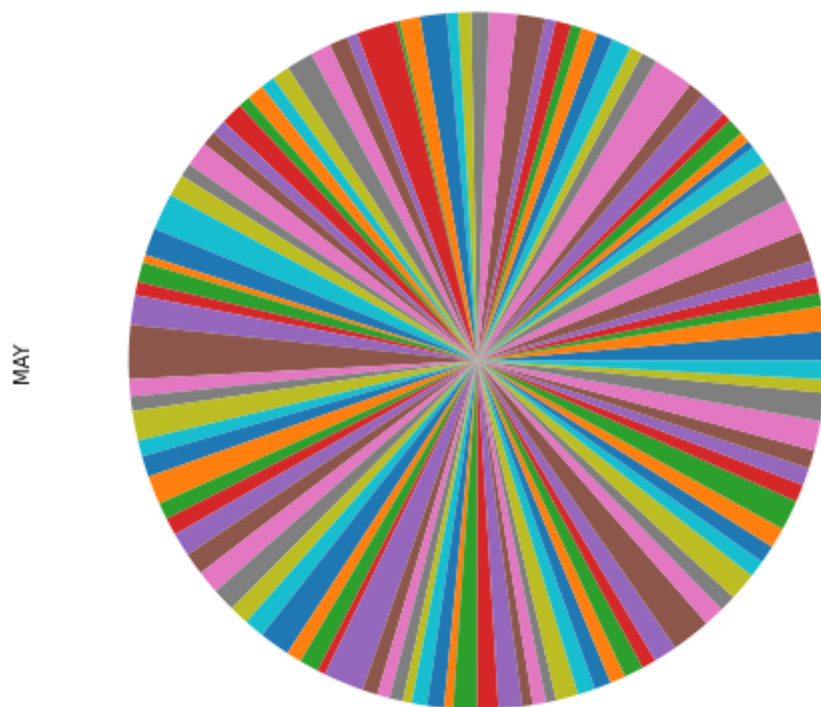


In [205]:

```
a.plot.pie(y='MAY',figsize=(8,8),labels=None,legend=None)
```

Out[205]:

<AxesSubplot:ylabel='MAY'>



set27:

In [206]:

```
a=pd.read_csv(r"C:\Users\user\Downloads\Book27.csv")
a
```

Out[206]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
0	110	ARUNACHAL PRADESH	1916	48.1	69.8	71.1	316.1	424.6	1124.9	NaN	629.7	333.9
1	111	ARUNACHAL PRADESH	1917	21.4	164.5	NaN	269.6	107.9	823.8	909.1	628.4	411.5
2	112	ARUNACHAL PRADESH	1918	10.4	11.0	191.2	144.6	861.1	1609.9	1303.0	692.6	515.8
3	113	ARUNACHAL PRADESH	1919	34.5	67.8	28.5	256.9	420.6	973.6	999.0	286.7	628.7
4	114	ARUNACHAL PRADESH	1920	14.0	196.3	605.6	364.7	173.6	840.6	535.4	896.5	376.7
...
92	202	ARUNACHAL PRADESH	2011	40.0	51.3	174.5	240.8	219.6	288.4	531.4	277.6	286.7
93	203	ARUNACHAL PRADESH	2012	57.8	35.8	134.2	403.4	187.4	645.8	638.9	316.0	724.9
94	204	ARUNACHAL PRADESH	2013	18.5	40.5	115.1	175.1	335.8	290.0	329.6	230.2	316.1
95	205	ARUNACHAL PRADESH	2014	19.0	101.9	80.3	86.7	299.0	415.8	392.4	599.6	343.0
96	206	ARUNACHAL PRADESH	2015	30.8	47.5	97.5	287.1	238.9	637.9	329.3	595.5	374.2

97 rows × 20 columns



In [207]:

```
a.info()
```

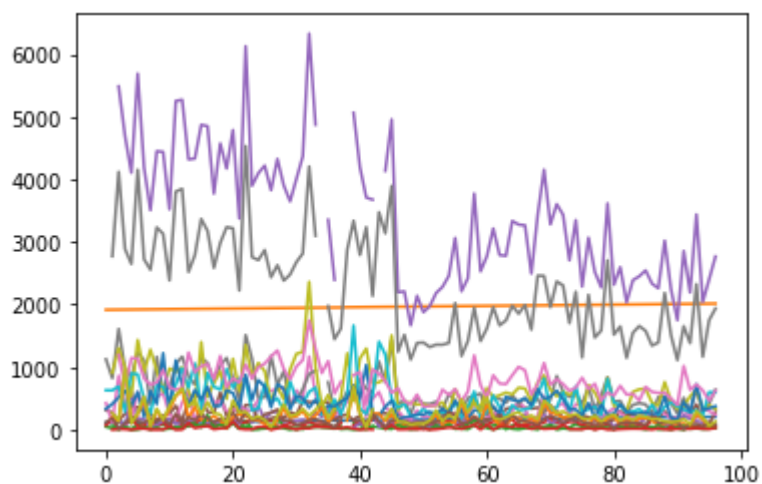
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 97 entries, 0 to 96
Data columns (total 20 columns):
 #   Column          Non-Null Count  Dtype
---  -
 0   index           97 non-null    int64
 1   SUBDIVISION     97 non-null    object
 2   YEAR            97 non-null    int64
 3   JAN             96 non-null    float64
 4   FEB             96 non-null    float64
 5   MAR             95 non-null    float64
 6   APR             97 non-null    float64
 7   MAY             97 non-null    float64
 8   JUN             96 non-null    float64
 9   JUL             96 non-null    float64
10  AUG             97 non-null    float64
11  SEP             97 non-null    float64
12  OCT             95 non-null    float64
13  NOV             95 non-null    float64
14  DEC             95 non-null    float64
15  ANNUAL          91 non-null    float64
16  Jan-Feb         96 non-null    float64
17  Mar-May         95 non-null    float64
18  Jun-Sep         95 non-null    float64
19  Oct-Dec         94 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 15.3+ KB
```

In [208]:

```
a.plot.line(legend=None)
```

Out[208]:

<AxesSubplot:>

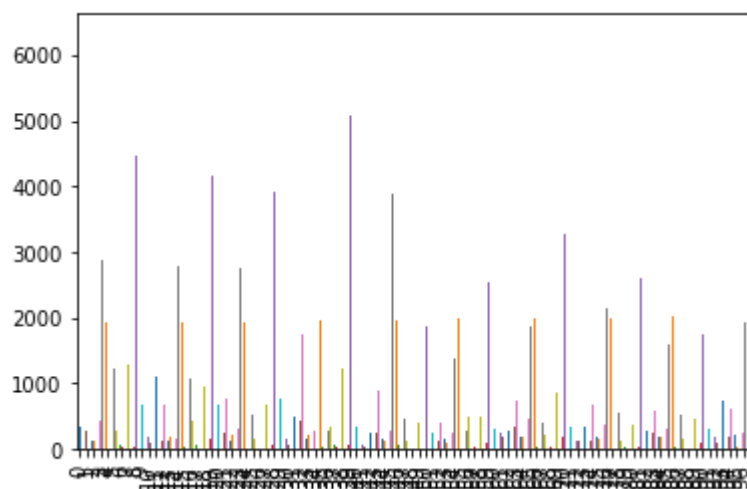


In [209]:

```
a.plot.bar(legend=None)
```

Out[209]:

<AxesSubplot:>

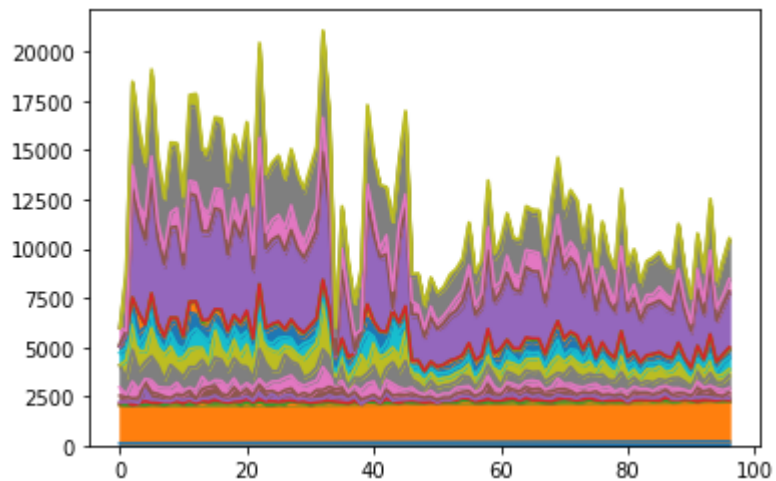


In [210]:

```
a.plot.area(legend=None)
```

Out[210]:

<AxesSubplot:>

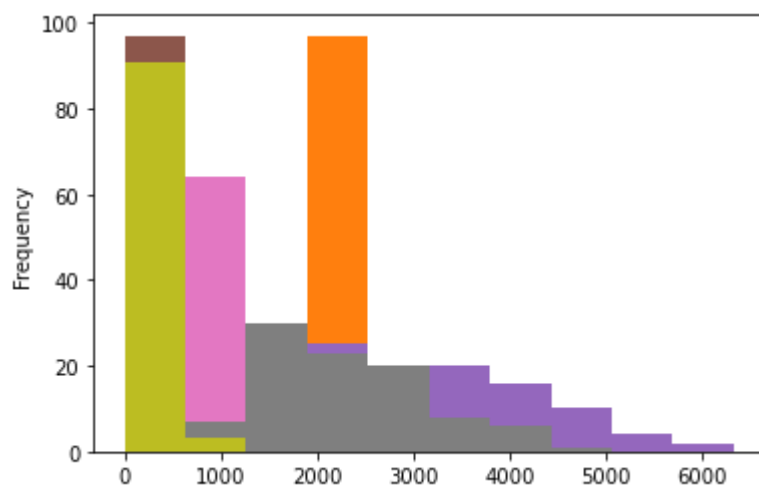


In [211]:

```
a.plot.hist(legend=None)
```

Out[211]:

<AxesSubplot:ylabel='Frequency'>

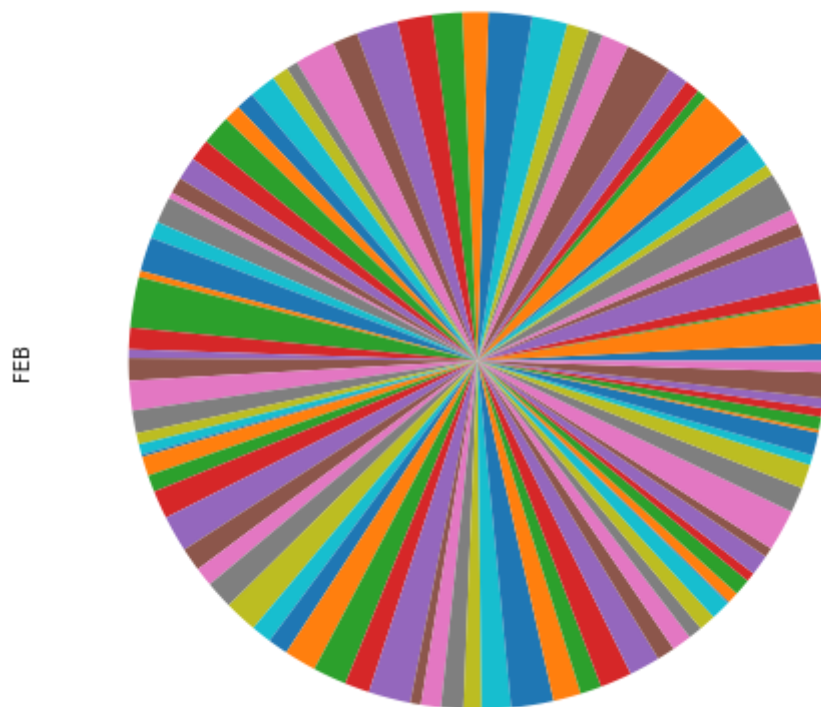


In [212]:

```
a.plot.pie(y='FEB',figsize=(8,8),labels=None,legend=None)
```

Out[212]:

<AxesSubplot:ylabel='FEB'>



set28:

In [213]:

```
a=pd.read_csv(r"C:\Users\user\Downloads\Book28.csv")
a
```

Out[213]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
0	207	ASSAM & MEGHALAYA	1901	27.1	19.5	30.6	223.0	207.0	524.9	430.6	464.1	291.4
1	208	ASSAM & MEGHALAYA	1902	9.3	10.2	105.6	350.0	262.1	620.7	510.8	536.0	441.3
2	209	ASSAM & MEGHALAYA	1903	19.9	25.4	103.6	140.6	206.6	607.4	362.7	551.9	306.4
3	210	ASSAM & MEGHALAYA	1904	11.1	56.1	51.9	457.1	375.2	385.7	477.6	438.8	245.9
4	211	ASSAM & MEGHALAYA	1905	19.9	16.9	137.9	213.0	275.5	521.7	439.1	649.1	276.0
...
110	317	ASSAM & MEGHALAYA	2011	11.1	11.4	109.0	92.1	238.3	316.0	395.8	302.6	221.6
111	318	ASSAM & MEGHALAYA	2012	15.2	6.9	28.8	279.1	185.8	729.7	444.3	289.2	411.6
112	319	ASSAM & MEGHALAYA	2013	1.1	9.6	44.0	112.8	346.7	286.2	367.8	289.7	229.3
113	320	ASSAM & MEGHALAYA	2014	2.0	28.3	29.3	51.5	351.1	426.4	374.4	484.6	420.2
114	321	ASSAM & MEGHALAYA	2015	13.4	15.5	37.5	250.9	332.5	558.5	300.1	590.9	279.9

115 rows × 20 columns



In [214]:

```
a.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 115 entries, 0 to 114
Data columns (total 20 columns):
#   Column          Non-Null Count  Dtype
---  -
0   index           115 non-null    int64
1   SUBDIVISION     115 non-null    object
2   YEAR            115 non-null    int64
3   JAN             115 non-null    float64
4   FEB             115 non-null    float64
5   MAR             115 non-null    float64
6   APR             115 non-null    float64
7   MAY             115 non-null    float64
8   JUN             115 non-null    float64
9   JUL             115 non-null    float64
10  AUG             115 non-null    float64
11  SEP             115 non-null    float64
12  OCT             115 non-null    float64
13  NOV             115 non-null    float64
14  DEC             115 non-null    float64
15  ANNUAL          115 non-null    float64
16  Jan-Feb         115 non-null    float64
17  Mar-May         115 non-null    float64
18  Jun-Sep         115 non-null    float64
19  Oct-Dec         115 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 18.1+ KB
```


In [215]:

```
b=a.fillna(method='ffill')
b
```

Out[215]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
0	207	ASSAM & MEGHALAYA	1901	27.1	19.5	30.6	223.0	207.0	524.9	430.6	464.1	291.4
1	208	ASSAM & MEGHALAYA	1902	9.3	10.2	105.6	350.0	262.1	620.7	510.8	536.0	441.3
2	209	ASSAM & MEGHALAYA	1903	19.9	25.4	103.6	140.6	206.6	607.4	362.7	551.9	306.4
3	210	ASSAM & MEGHALAYA	1904	11.1	56.1	51.9	457.1	375.2	385.7	477.6	438.8	245.9
4	211	ASSAM & MEGHALAYA	1905	19.9	16.9	137.9	213.0	275.5	521.7	439.1	649.1	276.0
...
110	317	ASSAM & MEGHALAYA	2011	11.1	11.4	109.0	92.1	238.3	316.0	395.8	302.6	221.6
111	318	ASSAM & MEGHALAYA	2012	15.2	6.9	28.8	279.1	185.8	729.7	444.3	289.2	411.6
112	319	ASSAM & MEGHALAYA	2013	1.1	9.6	44.0	112.8	346.7	286.2	367.8	289.7	229.3
113	320	ASSAM & MEGHALAYA	2014	2.0	28.3	29.3	51.5	351.1	426.4	374.4	484.6	420.2
114	321	ASSAM & MEGHALAYA	2015	13.4	15.5	37.5	250.9	332.5	558.5	300.1	590.9	279.9

115 rows × 20 columns

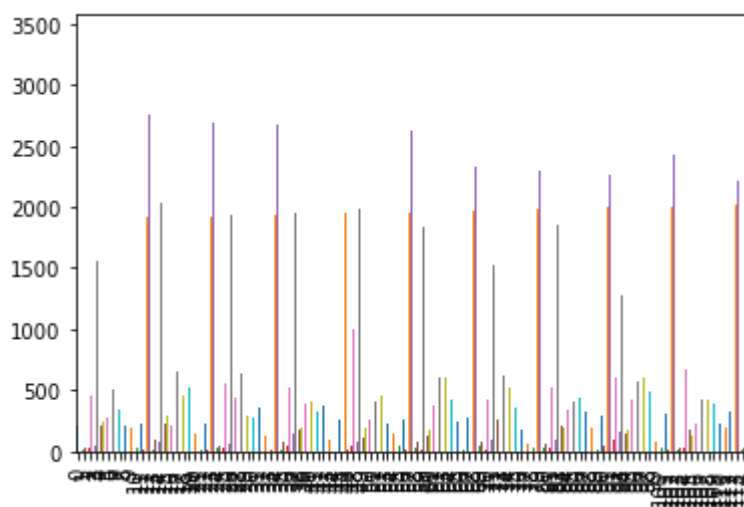


In [216]:

```
b.plot.bar(legend=None)
```

Out[216]:

<AxesSubplot:>

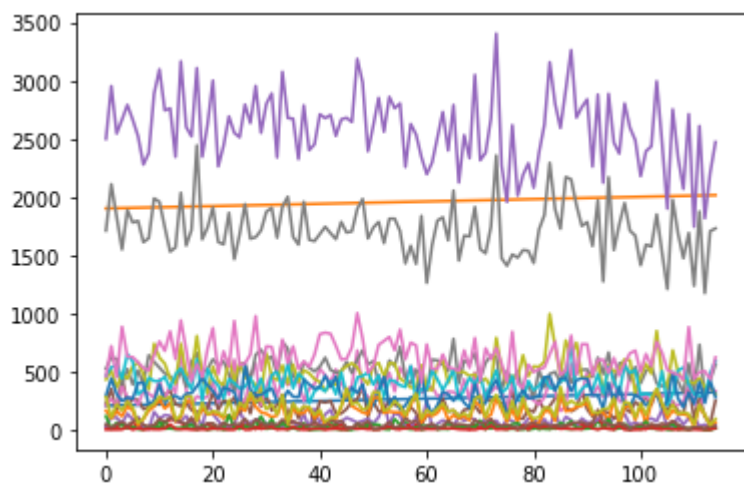


In [217]:

```
b.plot.line(legend=None)
```

Out[217]:

<AxesSubplot:>

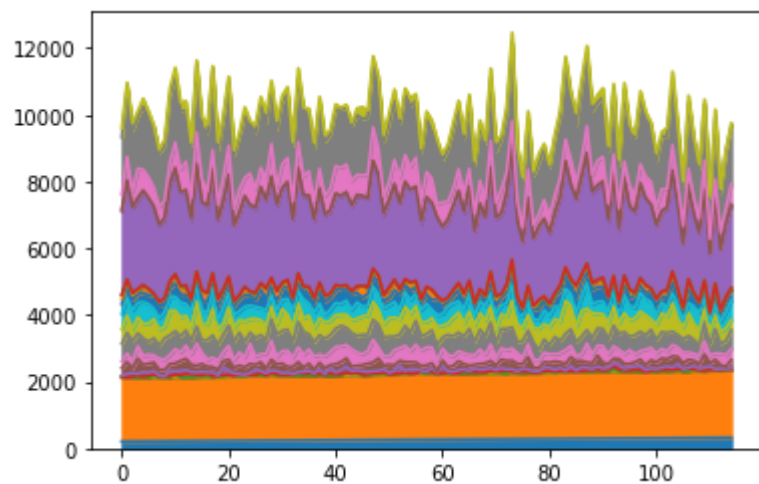


In [218]:

```
b.plot.area(legend=None)
```

Out[218]:

<AxesSubplot:>

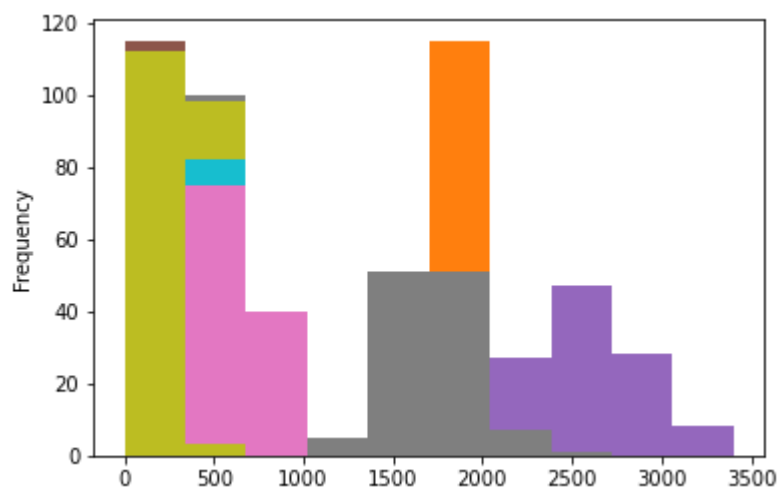


In [219]:

```
b.plot.hist(legend=None)
```

Out[219]:

<AxesSubplot:ylabel='Frequency'>

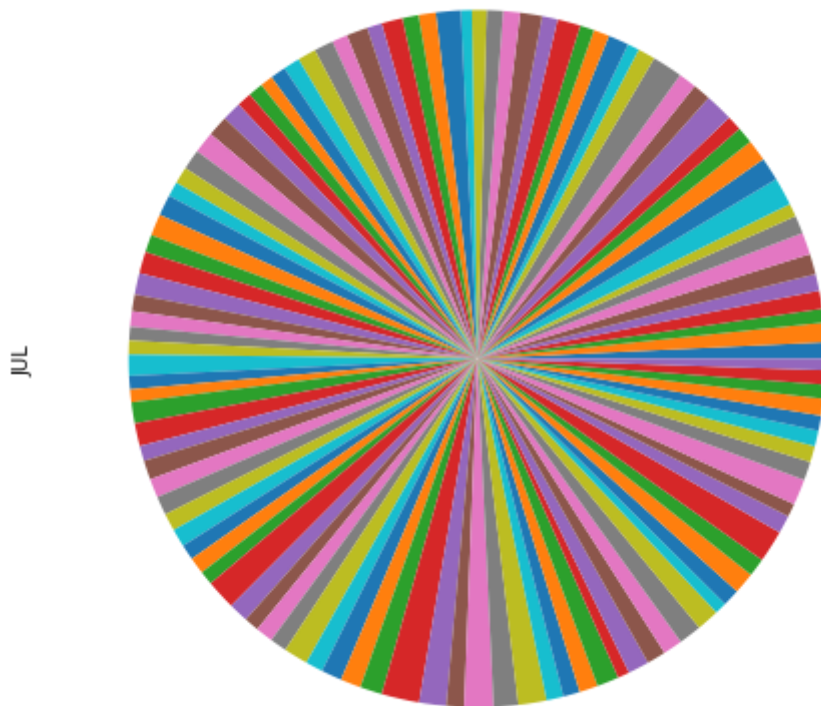


In [220]:

```
b.plot.pie(y='JUL',figsize=(8,8),labels=None,legend=None)
```

Out[220]:

<AxesSubplot:ylabel='JUL'>



set29:

In [222]:

```
a=pd.read_csv(r"C:\Users\user\Downloads\Book29.csv")
a
```

Out[222]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
0	322	NAGA MANI MIZO TRIPURA	1901	11.7	18.1	29.4	206.2	124.0	443.3	331.4	466.0	304.1
1	323	NAGA MANI MIZO TRIPURA	1902	4.8	0.5	36.3	297.8	215.5	480.1	392.4	312.8	318.7
2	324	NAGA MANI MIZO TRIPURA	1903	6.5	40.5	139.8	45.5	159.9	458.6	300.2	470.6	366.1
3	325	NAGA MANI MIZO TRIPURA	1904	2.3	46.9	47.5	290.3	230.5	455.3	423.5	423.6	375.8
4	326	NAGA MANI MIZO TRIPURA	1905	9.1	35.3	306.5	161.7	193.6	339.7	450.1	429.9	320.1
...
110	432	NAGA MANI MIZO TRIPURA	2011	12.6	3.6	51.4	81.1	334.9	374.2	313.3	367.6	258.3
111	433	NAGA MANI MIZO TRIPURA	2012	24.5	10.2	20.3	243.5	163.5	396.2	280.1	342.7	248.7
112	434	NAGA MANI MIZO TRIPURA	2013	0.2	5.7	19.7	60.3	348.9	206.6	255.9	291.3	241.4
113	435	NAGA MANI MIZO TRIPURA	2014	1.2	21.0	25.4	49.6	192.5	268.3	295.7	372.3	300.9
114	436	NAGA MANI MIZO TRIPURA	2015	14.4	14.2	21.6	253.5	198.3	283.9	413.6	334.2	255.9

115 rows × 20 columns



In [223]:

```
a.info()
```

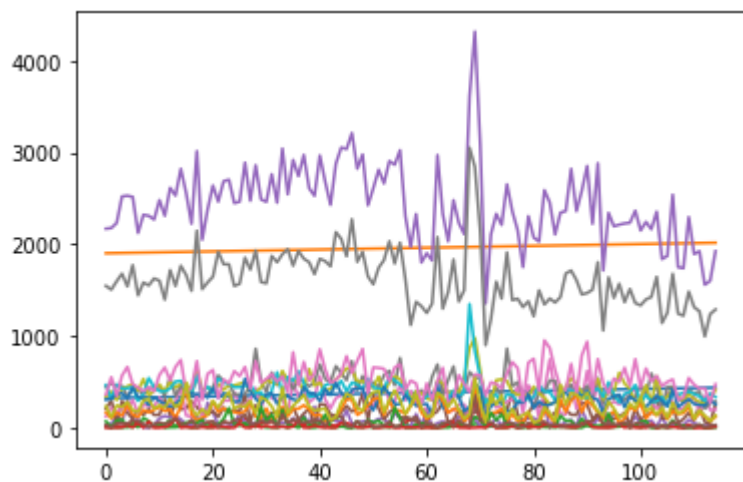
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 115 entries, 0 to 114
Data columns (total 20 columns):
 #   Column          Non-Null Count  Dtype
---  -
 0   index           115 non-null    int64
 1   SUBDIVISION     115 non-null    object
 2   YEAR            115 non-null    int64
 3   JAN             115 non-null    float64
 4   FEB             115 non-null    float64
 5   MAR             115 non-null    float64
 6   APR             115 non-null    float64
 7   MAY             115 non-null    float64
 8   JUN             115 non-null    float64
 9   JUL             115 non-null    float64
10   AUG             115 non-null    float64
11   SEP             115 non-null    float64
12   OCT             115 non-null    float64
13   NOV             115 non-null    float64
14   DEC             115 non-null    float64
15   ANNUAL          115 non-null    float64
16   Jan-Feb         115 non-null    float64
17   Mar-May         115 non-null    float64
18   Jun-Sep         115 non-null    float64
19   Oct-Dec         115 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 18.1+ KB
```

In [224]:

```
a.plot.line(legend=None)
```

Out[224]:

<AxesSubplot:>

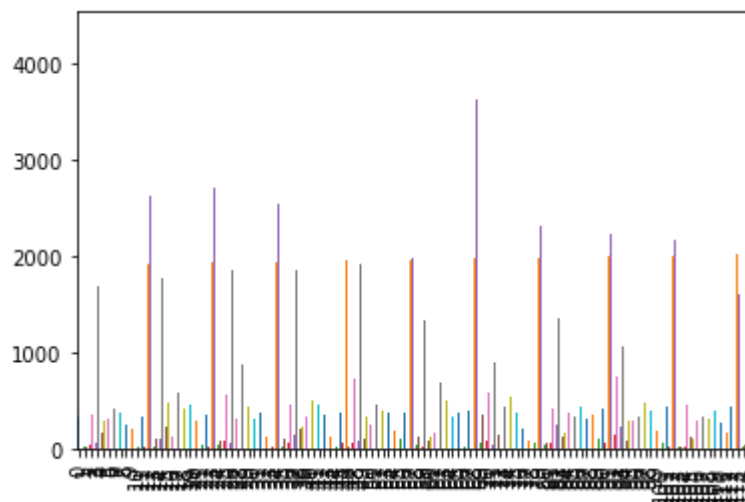


In [225]:

```
a.plot.bar(legend=None)
```

Out[225]:

<AxesSubplot:>

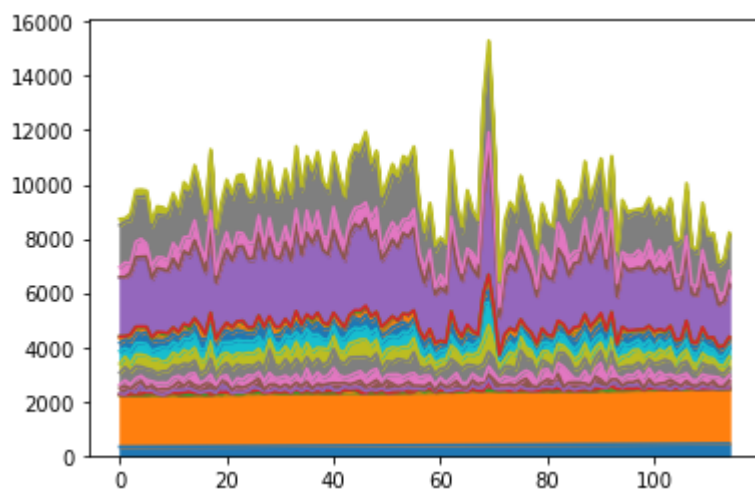


In [226]:

```
a.plot.area(legend=None)
```

Out[226]:

<AxesSubplot:>

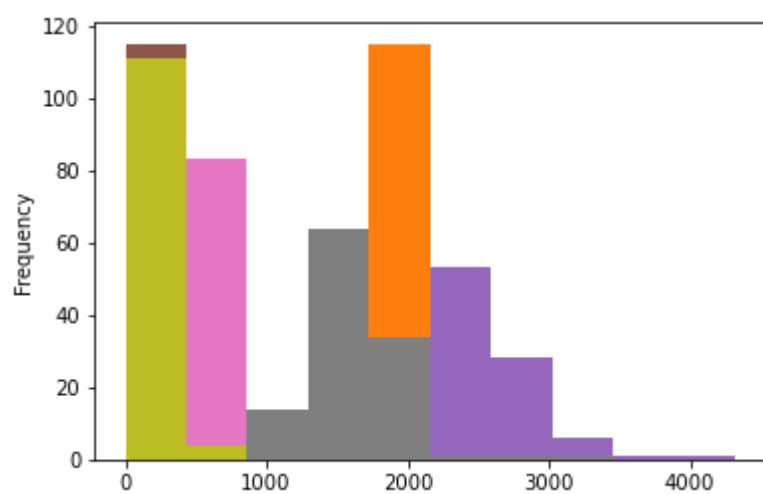


In [227]:

```
a.plot.hist(legend=None)
```

Out[227]:

<AxesSubplot:ylabel='Frequency'>

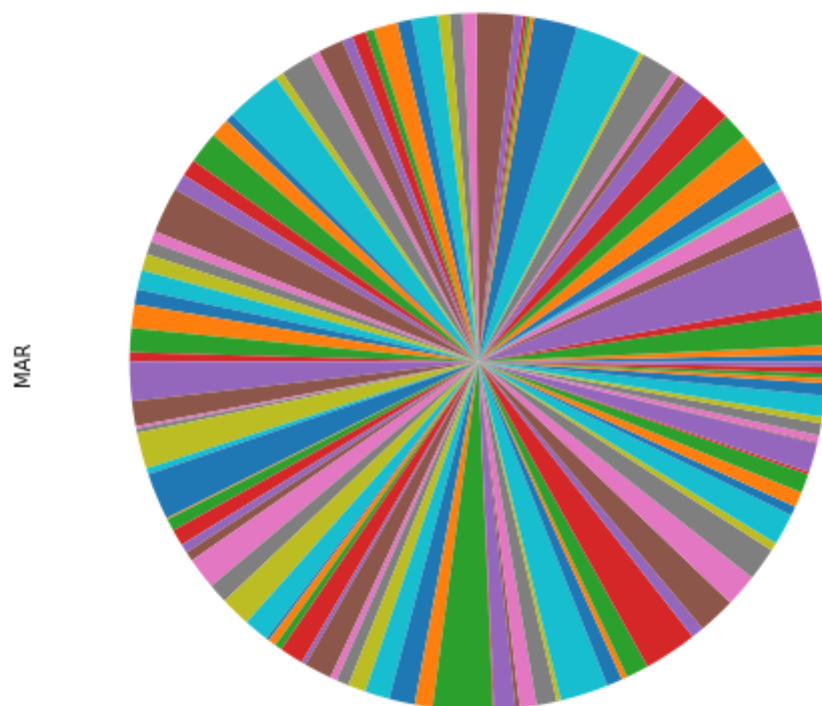


In [228]:

```
a.plot.pie(y='MAR',figsize=(8,8),labels=None,legend=None)
```

Out[228]:

<AxesSubplot:ylabel='MAR'>



set30:

In [229]:

```
a=pd.read_csv(r"C:\Users\user\Downloads\Book30.csv")  
a
```

Out[229]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
0	437	SUB HIMALAYAN WEST BENGAL & SIKKIM	1901	26.5	14.8	14.1	29.2	195.5	488.4	524.8	501.1	242.7
1	438	SUB HIMALAYAN WEST BENGAL & SIKKIM	1902	1.2	0.7	87.1	126.1	271.3	539.2	671.0	603.8	799.9
2	439	SUB HIMALAYAN WEST BENGAL & SIKKIM	1903	5.5	8.7	19.6	18.6	163.6	541.2	431.5	708.8	365.2
3	440	SUB HIMALAYAN WEST BENGAL & SIKKIM	1904	3.4	29.2	0.9	124.3	333.6	274.2	500.4	468.5	260.6
4	441	SUB HIMALAYAN WEST BENGAL & SIKKIM	1905	12.0	31.2	51.9	104.4	290.6	524.8	523.1	1036.6	321.1
...
110	547	SUB HIMALAYAN WEST BENGAL & SIKKIM	2011	8.5	19.9	71.2	135.0	247.8	419.8	612.3	470.3	356.3
111	548	SUB HIMALAYAN WEST BENGAL & SIKKIM	2012	15.3	13.9	45.5	159.8	202.4	604.2	684.5	332.7	434.7
112	549	SUB HIMALAYAN WEST BENGAL & SIKKIM	2013	3.0	23.6	32.1	114.7	296.5	404.9	588.4	416.3	308.0
113	550	SUB HIMALAYAN WEST BENGAL & SIKKIM	2014	0.2	26.6	37.7	47.9	308.6	543.2	384.6	563.3	371.5
114	551	SUB HIMALAYAN WEST BENGAL & SIKKIM	2015	15.7	15.0	64.8	149.0	304.6	508.2	393.3	626.6	354.9

115 rows × 20 columns



In [230]:

```
a.info()
```

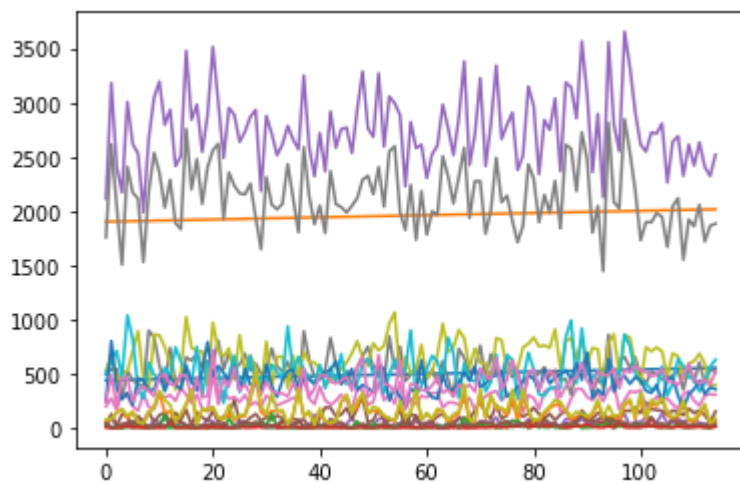
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 115 entries, 0 to 114
Data columns (total 20 columns):
#   Column          Non-Null Count  Dtype
---  -
0   index           115 non-null    int64
1   SUBDIVISION     115 non-null    object
2   YEAR            115 non-null    int64
3   JAN             115 non-null    float64
4   FEB             115 non-null    float64
5   MAR             115 non-null    float64
6   APR             115 non-null    float64
7   MAY             115 non-null    float64
8   JUN             115 non-null    float64
9   JUL             115 non-null    float64
10  AUG             115 non-null    float64
11  SEP             115 non-null    float64
12  OCT             115 non-null    float64
13  NOV             115 non-null    float64
14  DEC             115 non-null    float64
15  ANNUAL          115 non-null    float64
16  Jan-Feb        115 non-null    float64
17  Mar-May        115 non-null    float64
18  Jun-Sep        115 non-null    float64
19  Oct-Dec        115 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 18.1+ KB
```

In [231]:

```
a.plot.line(legend=None)
```

Out[231]:

<AxesSubplot:>

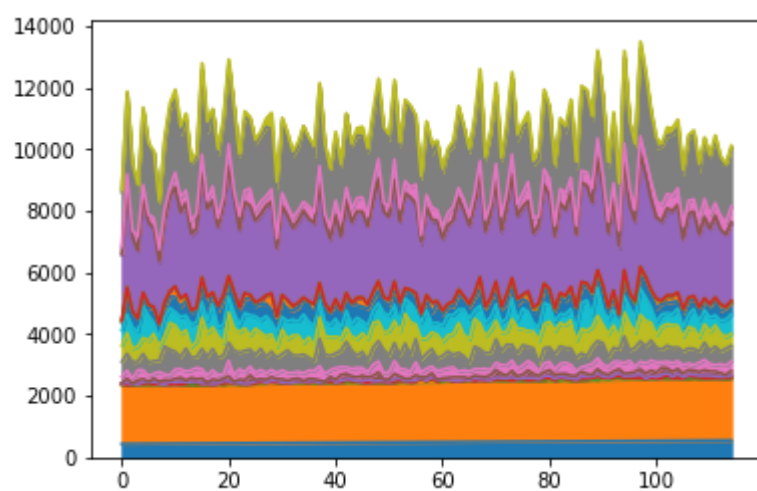


In [232]:

```
a.plot.area(legend=None)
```

Out[232]:

<AxesSubplot:>

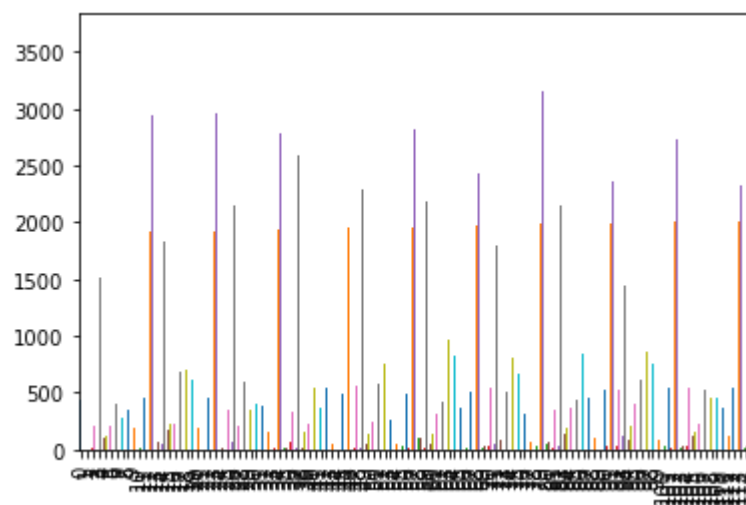


In [233]:

```
a.plot.bar(legend=None)
```

Out[233]:

<AxesSubplot:>

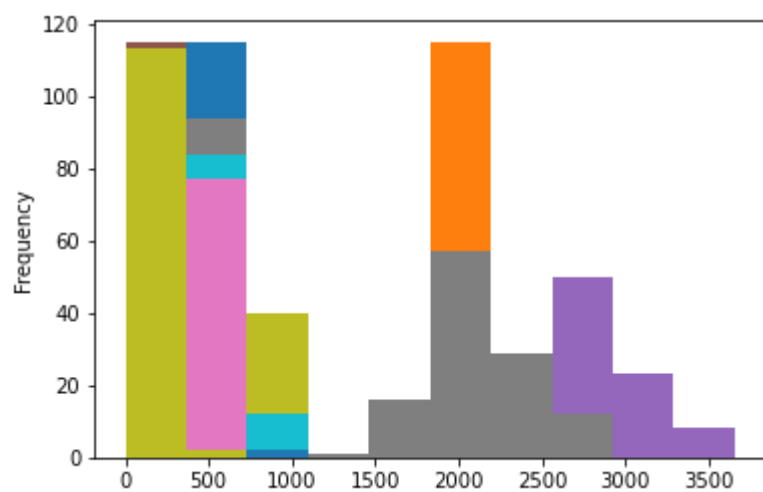


In [234]:

```
a.plot.hist(legend=None)
```

Out[234]:

<AxesSubplot:ylabel='Frequency'>

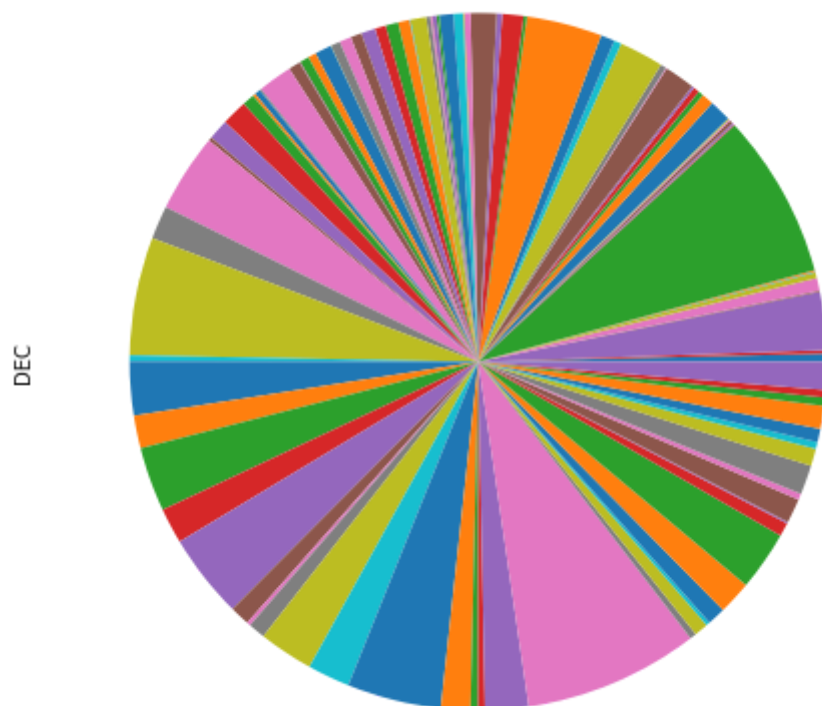


In [235]:

```
a.plot.pie(y='DEC',figsize=(8,8),labels=None,legend=None)
```

Out[235]:

<AxesSubplot:ylabel='DEC'>



In []: